

A special combined edition of the first two years of the *free* newspaper for Macintosh™ users

Signal #24
May 1985

Gaining Speed With TurboCharger

by James Bierman and Eli Hollander

TurboCharger is a new \$95 "disk cache" program for speeding up the 512K Mac, from Nevins Microsystems Inc., 210 5th Ave., New York, NY 10010, (212) 563-1910. TurboCharger assists the Macintosh by holding the contents of the most recently and frequently used disk sectors in RAM, thus eliminating the time it would take to re-read the sectors from disk. TurboCharger installs on a startup disk with great ease, and functions invisibly once it's put into action.

TurboCharger avoids many of the pitfalls that characterize its two leading competitors, RAM disk and Switcher. It effectively speeds up programs by as much as three to ten times, particularly applications that use large files, like data base programs and spelling checkers, since they frequently refer to disk.

There are two ways to install TurboCharger on your startup disk, both of them a breeze. The first is simply to insert the TurboCharger master disk, and the program goes into action, ejecting the disk, and prompting you to insert the disk you wish to "turbocharge".

The second almost equally simple method is to copy the TurboCharger icon onto a startup disk. Open that icon, and you will be given a dialogue box of options for choosing the size of the disk cache buffer (32K, 64K, 128K, 192K, 256K, "maximum", or OFF), an auto startup option, and a "buffer writes" option that controls whether or not TurboCharger temporarily holds certain disk information in RAM. There is also a short help menu built into the program. Using the first installation procedure, the program is preset to auto startup and sets the buffer size at 256K.

Installing TurboCharger with the auto start mode adds two resources to the System file. One resource loads TurboCharger while you're looking at "Welcome to Macintosh", before the Finder is loaded. The booting speed of the Mac is not affected by the addition of the two resources, which are removed from the System file when TurboCharger is turned off.

Under normal use, the preset choices function very well. For applications that run in less than 128K, it's possible to set the buffer size to the "maximum", which is designed to leave you with the equivalent of a 128K Mac after disk cache buffering. For larger applications, such as ThinkTank 512, a smaller buffer (192K) must be chosen. Unfortunately, a little experimentation is necessary to determine what buffer size works best with each application. The larger the buffer, the more effective TurboCharger is in speeding up the Mac, but too large a buffer will cripple certain programs designed to take advantage of the 512K Mac. For example, MacPaint 1.5 loses its fast scrolling capability when the

buffer is set to the maximum. With a 256K buffer, MacPaint functions as on a "normal" 512K Macintosh, but with an overall increase in speed. The vendor should provide a list of commonly used software and the buffer size best suited to each program.

The "buffer writes" option in the installation dialogue box displays an alert and is accompanied by appropriately stern warnings in the manual. If this option is on when a program bombs, or when your Mac is reset or accidentally turned off (as in the case of a power failure), you could possibly destroy your entire disk, because information normally recorded in the Desktop file and essential to the Finder would be lost. It is our feeling that the slight speed gained by this option is a temptation not justified in light of this enormous risk, and we recommend that the vendor not make this option available. It's too chancy!

The attractive thing about TurboCharger is that once you have all your settings correct, you can forget about it. Its functioning is entirely invisible. To save 14K of disk space, you can even remove the TurboCharger control application by trashing its icon, and your disk will remain TurboCharged. (If you want to remove the TurboCharger function altogether, all you have to do is re-insert the master disk, which will ask you if you want to do the removal.) Except for increased speed, there is no easy way to tell if a disk is TurboCharged or not once the icon is removed. The manufacturer claims that giving away a TurboCharged disk, even without the icon, is an infringement of copyright.

On a disk-intensive system like the Macintosh, TurboCharger can make a considerable difference. The increase in performance appears inconsistent, but has an overall effect of greatly speeding things up. When you first load a program, there is little improvement because the Mac is reading sectors that haven't previously been used. Subsequent reads (including the frequent references to the System file the Mac seems to love) can be three to five times faster. With the 4.1 miniFinder, opening MacPaint 1.5 took 13 seconds without TurboCharger, but only 9.8 seconds with TurboCharger and only 2.8 seconds the second time MacPaint was opened. Quitting MacPaint took 4.2 seconds without TurboCharger, but only 1.5 seconds with TurboCharger.

Without TurboCharger, MacWrite 4.5 took 17.6 seconds to open and 6.5 seconds to quit. With TurboCharger, MacWrite took 15 seconds to open the first time, 6.5 seconds to open the second time, 3.6 seconds to quit the first time, and 4.2 seconds to quit the second time.

Without TurboCharger, Microsoft Word took 18.8 seconds to open and 17.0 seconds to quit. With TurboCharger, Word took 13.8 seconds to open the first time, 4.3 seconds to open the second time, 9.6 seconds to quit the first time, and 7.3 seconds to quit the second time.

Moving from one application to

another provides a more dramatic example of the kind of improvements one can expect with TurboCharger. To go from Microsoft Word to the Rolodex and back using the 4.1 Finder took 69.3 seconds without TurboCharger, but only 27 seconds the first time and 21 seconds the second time with TurboCharger.

Improvements of two or three hundred percent typify TurboCharger's performance. Even the first time an application is started from the desktop, the loading of that program is still speeded up because portions of the System file and Finder are already cached in RAM and don't need to be read from the disk repeatedly. Applications themselves work faster with TurboCharger because, once they are loaded, frequently used portions of the program's code or data remain in TurboCharger's RAM buffer instead of being re-read from disk. For example, Hayden:Speller takes considerably less time to check the spelling of a document once its dictionaries are already in memory.

Currently, RAM disk and Switcher are probably the most commonly used programs for speeding up the Mac. They each have uses for which they are particularly suited, but TurboCharger surpasses them both in general use. TurboCharger can be installed and forgotten, and from then on it always assists the Mac's operation, although not as dramatically as RAM disk or Switcher in certain cases. (Another disk cache program called MacBooster has been announced by Mainstay, but had not started shipping when we last checked.)

Compared to RAM disk, TurboCharger does not cause a Mac to take any extra time in starting up (it even takes a little less), nor does it load seldom used resources such as dialog boxes, alerts, and program overlays. A RAM disk loads a program into memory twice (once into the RAM disk and once into RAM when in use), holds only a single average size application along with the System folder, and will not function with copy protected software, which TurboCharger does.

Switcher can be of enormous benefit if you are working exclusively with two or three applications for a long period of time. It shifts between loaded applications almost instantly, but doesn't routinely speed them up as TurboCharger does. Loading Switcher is neither quick nor easy, and its use increases the risks of a bomb, especially with several open files. TurboCharger has the advantage over both Switcher and RAM disk of loading only needed disk sectors into memory, rather than an entire application or file.

There are some limitations. First, TurboCharger cannot be installed on the Macintosh XL or a system using a hard disk. The vendor promises to fix that soon in an update.

Second, TurboCharger doesn't work with a 128K Mac, because it's designed to always leave 128K free from buffer control.

Third, the buffer size is determined by the setting on the

startup disk. If a second disk is inserted with a different selected buffer size, it is forced to conform to the first size. TurboCharger presently has no way of associating different buffer sizes with different applications. In practice, that means that buffers have to be set at the lowest common denominator if you want to avoid resetting your Mac or TurboCharger's controls when you move to a second application disk.

Fourth, since TurboCharger automatically uses up a certain amount of RAM, some functions such as copying files or disks on a single drive Mac necessitate excessive disk swapping. For such tasks, it's best (and relatively easy) to turn off TurboCharger.

The great advantage of TurboCharger is that it works in a vast variety of circumstances, appreciably speeding up the Macintosh. Its algorithm enables it to determine what to keep in memory to adapt to your patterns of use. It has most of the advantages of the RAM disk without its shortcomings. It is invisible, and once installed, you can forget about it. After a couple weeks of intensive use, we have gotten used to our Mac's vastly improved performance, and would hate to give up TurboCharger.

Subscriber Interests And Activities

Mike Zwilling, Diamond, OH: I teach college math and use my Mac to make up tests and homework, and write committee reports and other word processing chores, including my dissertation in biostatistics. I'm on the lookout for a statistics package, and I'm still waiting for Apple's BASIC.

Albert Chang, Patchogue, NY: I purchased a Lisa 2/10 last year for Macintosh software development. I am still in the learning process and finding the Macintosh tools very powerful but slower to learn than other computers I've developed for in the past. I am using the Manx Aztec C compiler.

Cosmo Castellano, New Hartford, NY: I am interested in software development for the Macintosh. I work at General Electric and do digital logic design and microcode in addition to other electrical engineering tasks. I use a 300 baud modem to access a VAX computer at work.

Scott G. Hess, Chico, CA: I'm a senior at Chico State majoring in electrical engineering. I've been using my Mac mainly with Microsoft BASIC to plot and analyze experimental lab data. Also, MacWrite/Paint/Draw are excellent for writing up engineering reports.

James L. Bruun, Minnetonka, MN: I have a Lisa 2/5 running MacWorks. I have the Lisa 7/7 software, but have stopped using it in favor of various Microsoft programs on the 5MB hard disk. I am a software developer and have recently purchased Consulair C. I think it's the best software development environment I've discovered for the Mac.

Amy Veranth, Portland, OR: I am an attorney and use my Mac for drafting briefs and pleadings for court. Although my secretary still types the final document on our office word processor, being able to draft and edit on the Mac enables me to write more precisely in less time.

David Cusimano, Willowdale, Canada: I bought my Lisa when it first came out on the market. I use it for telecommunications, MacWorks, keeping club records, formal reports and correspondence.

Robert J. Whitney, Wyandotte, MI: I'm using DB Master on the Mac to maintain a data base of local cable production volunteers. It specifies their interests and abilities, classes in TV production they've taken, their availability to do productions at various times during the week, and, of course, the ever present mailing and phone number lists. I have also been using the Mac to prepare program schedules for our two locally programmed cable channels. The schedules are processed for use as listings for the local weekly newspaper and as actual program logs for operating the two channels.

ClickArt Effects Useful But Unstable

If you regularly use MacPaint, you'll probably want (and maybe even need) a \$49.95 diskette called ClickArt Effects, from T/Maker Co., 2115 Landings Dr., Mountain View, CA 94043, (415) 962-0195. ClickArt Effects extends MacPaint by providing tools for rotating, slanting, distorting, or adding perspective to screen images.

ClickArt Effects installs in seconds. You just copy the supplied icon to a disk containing MacPaint, and then open the icon to get an installation dialog box that allows you to Install, Remove, or Cancel. Once installed, MacPaint's accessory menu will reveal a new selection called ClickArt Effects. (The icon for doing the installation can then be trashed.) Selecting the new menu option causes the MacPaint tools to temporarily disappear and be replaced with four new Effects tools: a wheel for rotating, the Leaning Tower of Pisa for slanting, a road for perspective, and hands twisting paper for distortion.

Dragging the pointer across the painting creates a selection rectangle similar to MacPaint's standard selection marquee. The corners of the selected rectangle can then be dragged to cause the image to rotate or distort, depending on the last Effects tool selected. If the wheel is the current tool, the selection rectangle rotates when a corner is dragged. (The rotated contents are painted once the mouse button is released at the end of the move.) Holding down the Shift key constrains the rotation to five degree steps. With the tower tool, only horizontal moves of a pair of corners are allowed, and the slanted selection rectangle always keeps the shape of a parallelogram. The road tool allows one rectangle corner to move horizontally to create a trapezoid for perspective, and the distort tool allows any corner to be moved independently in any direction. Undo is available to correct bad moves, and MacPaint can be re-entered at any time by again selecting ClickArt Effects in the accessory menu. The translated images created by ClickArt Effects are always a little rough looking at first, but usually it's fairly easy to clean up the distortions by spending just a few moments in FatBits.

ClickArt Effects is a terrific extension to MacPaint, and we expect to be using it quite often. Unfortunately, a copy of MacPaint

that had never crashed in a year of use crashed twice during our only session with Effects (first with a "bad version of MacPaint" message, then later with the infamous restart bomb), so we'll have to withhold the Thumbs Up we expected to award until we determine what's going wrong.

Club Notices And Newsletters

Publications Received For The First Time

Mini'app'les, Minnesota Apple Computer Users' Group Inc. (includes Macintosh Special Interest Group), \$17/first year, Box 796, Hopkins, MN 55343, (612) 866-3441.

Spring 1985 Newsletter, Berkeley Macintosh User Group, \$15/semester, 1442A Walnut St. #153, Berkeley, CA 94709, (415) 849-9117.

Known Users, Sequoia Macintosh Users' Group, \$20/year, Box 4623, Arcata, CA 95521, (707) 822-3578.

Penn Printout, University of Pennsylvania Microcomputer Services (for all Penn user groups), 1202 Blockley Hall/S1, Philadelphia, PA 19104, (215) 898-1780.

Membership Newsletter, Austin Area Certified Developers Association, Box 50447, Austin, TX 78763, (512) 441-4583.

Mac Orange Journal, Mac Orange County Users Group, free, Box 2178, Huntington Beach, CA 92647, (714) 842-0518.

Mouse Droppings, Macintosh Users Group of Corvallis, Box 1912, Albany, OR 97321, (503) 563-2501.

MAGISKA BLADET (magic leaf), Macintosh Användar Grupp I Sverige, Dianavägen 30, 11543 Stockholm, Sweden, (08) 673-568.

New Clubs Forming

Montana Macademics, c/o Michael Sexson, Montana State University, Department of English, Bozeman, MT 59717, (406) 994-3768.

Minot Mac Users, 620 10th Ave. SE, Minot, ND 58701.

Tri-State Mac Users Group, c/o David Hoefer, Box 241, Townshend, VT 05353, (802) 365-7778.

Australian Lisa Users Group, c/o Julian Ehrlich, GPO Box 2943, Sydney, NSW 2001, Australia, (02) 260-1270.

Old Friends Keeping In Touch

FatBits, Conejo Valley Macintosh Users Group, \$21/year, Box 7118, Thousand Oaks, CA 91359, (805) 499-2824, and Ventura County Macintosh Club, \$21/year, Box 7754, Oxnard, CA 93031.

Mac News, Eugene Macintosh Group, \$15/year, Box 10988, Eugene, OR 97440, (503) 683-5565.

MacCountry, North Coast Mac User's Group, \$10/year, 503 Marylyn Cir., Petaluma, CA 94952, (707) 763-1124.

San Diego Mac News, San Diego Macintosh User Group, \$15/year, Box 12561, La Jolla, CA 92037.

Mac'nTalk, Victoria's Macintosh Users Group, \$1/issue (Canadian), Box 7075-D, Victoria, BC V9B 4Z2, Canada.

MacNuggets, Carnegie-Mellon Macintosh Users' Group, \$24/year, 5115 Margaret Morrison St., Pittsburgh, PA 15213.

BETA Macs, Beautiful East Texas Area Mac Users, \$15/year, 1601 Cindy Lou, Henderson, TX 75652.

GD Infonet Newsletter, General Dynamics, Box 85808 MZ VP-5250, San Diego, CA 92138.

Mac Digest, Los Angeles Macintosh Group, \$1.50/issue, 12021 Wilshire Blvd. #349, Los Angeles, CA 90025, (213) 392-5697.

This Month's Mailbag

Adding To Word's Font List

In Signal #22, you state that Microsoft Word lets you select fonts from a scrolling dialog box that allows 32 fonts. My question is how? How do I get more fonts into the Word program?

David A. Newton, Upland, CA

Like MacWrite, Word displays whatever fonts are installed in the System file. You can use the standard Apple utility called Font Mover (it should be on one of the disks that came with your Mac) to move fonts in and out of the System file. -Editors

Paying A Pre-Released Program Penalty

I was editing a 3.8 MacWrite file when a bomb appeared. Now the 14K file won't open, and a bomb keeps appearing with the message that I have a system error and need to restart. Can you suggest a way to recover the file?

Martin Fass, Rochester, NY

Probably your best bet is to use a utility like Mac Zap, which is the only disk poker we've seen so far that includes instructions for recovering "lost" or damaged files. Write to Micro Analyst Inc., Box 15003, Austin, TX 78761 or call (512) 926-4527. -Editors

Moving From Lisa To Mac

I have a Lisa 2/10 which I use with a LisaCalc template I designed for daily accounts receivable in my office. I also have a 512K Macintosh. I am ultimately planning to switch to the Jazz program since I understand it allows up to 8,000 rows. That would greatly simplify my data entry and the number of individual files on disk.

Rather than retype every entry, I wonder if there is a way to send the information over to my Macintosh and then capture it and place it in Jazz? I read Apple is developing tools to allow conversion of Lisa files to Macintosh files. Do you have any information about this? Do you have information on using the serial interface between the two computers?

Michael B. Rumelt, St. Louis, MO

An April 29th press release from Apple promises that "owners using Lisa 7/7 software will be able to convert most of their data files so they can be used with Macintosh applications from other companies". We know a couple of users who have requested and received a preliminary (0.5) version of the "Macintosh Migration" package from their dealers, but we haven't heard how well it works. For a long time, we've done serial transfers of text files between the machines by simply plugging Mac's printer cable into Lisa's serial port A or B and then using MacTerminal and LisaTerminal to send text to one another. -Editors

MacPublisher vs. ReadySetGo

As editor of Mouse Droppings, the Mac Users Group of Corvallis newsletter, I was anxious to try out MacPublisher and ReadySetGo. Early editions of Mouse Droppings were composed exclusively in MacPaint. That's flexible, but also time consuming.

MacPublisher, by being first off the blocks, got the first try. It was frustrating from the start. Some early versions of MacPublisher refused to print out anything at all. The manual contained a lot of surprises. Dialog boxes showed up that the manual didn't cover. Others were difficult to understand.

To make a page pleasing to look

at, I like to slip in boldface subheads to break up long pieces of text. In MacPublisher, that means every subhead has to be a separate "article" (their term for a block of copy with the same attributes) since you can't imbed an italicized or boldface word within a line, which must be in one font, size, and style. You also can't create a vertical rule for separating columns.

The manual doesn't help you find out how to clip an article which extends deeper than a single screenful. I finally found that I could clip after using the scissors to drag the scroll box. Simple, but something that should be in the manual for us "literal minded" users.

With a lot of trepidation, I next tried ReadySetGo. The minute I looked at the manual, I sighed in relief. It looked great. Few words and lots of screen dumps. I booted ReadySetGo and waded into the tutorial. Everything worked just as the manual said it would. Every screen dump looked like what I saw on my screen. In less than 2,500 words, ReadySetGo's manual lets you make the program hum.

After completing the tutorial, I attempted a reproduction of a Mouse Droppings first page, complete with full width MacPaint logo, vertical column rules, headlines, stories, subheads, and imbedded boldface words in the middle of lines. Although no first time job with a brand new application is simple, I finished in a couple of hours! And it printed out on the Laserwriter, looking like a downtown print job!

The construction and positioning of text, pictures, frames and solid boxes is simple. It can be done by eyeball or with a dialog box that measures down to thousandths of an inch. Carryovers (material too long to fit in the column where you started it) are easily handled. Cut and Paste within ReadySetGo or from other applications is easy, although when I attempted to delete selected words or phrases with a backspace command, ReadySetGo only removed a letter at a time. The Cut or Clear command must be used instead. Sometimes when I selected a word or phrase for removal, ReadySetGo created highlighted selection boxes in other locations, and placed the cursor other than where I positioned it when I started backspacing letters out of the text.

I already have a wish list for ReadySetGo. Why not include an "advanced" tutorial which shows you how to lay out several pages, typical of users' needs? How about an on-screen transparent ruler or some other aid to help decide what measurements to use before entering them in the dialog box? How about having the dialog boxes automatically use default measurements?

One limitation is that ReadySetGo requires a 512K Macintosh. If you have a 128K Mac, you may want to try

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MacPublisher instead.

Philip C. Russell, Waldport, OR

We're Such A Flighty Publication

It is rather disheartening to see that you are so quickly dropping support of your Lisa readers, to concentrate on just Macintosh.

Max Dommartin, Los Angeles, CA

Quickly? We think it's been a very long two years since we first started writing about Lisa, a machine we originally expected would take the industry by storm. It was rather lonely, being what seemed like Lisa's only fan during all that time.

Thanks for including the membership list of your Los Angeles Lisa/XL club. We'll definitely send them samples of Signal so they can subscribe, but why did you wait so long to tell us about them? You haven't forgotten to tell them about us also, have you? (Out of your list of over twenty members, our records show that only eight have ever contacted Signal to ask for a free subscription!) User group organizers take note: tell your members about us. They'll appreciate the freebie, we'll appreciate the circulation, and our issues will get to you faster (because if enough Signals are headed for one destination, like to all those club members who have been joining us from Honolulu, the Post Office allows us to bundle the issues in their very own mailbag for direct routing). -Editors

Rolodex Help Needed, MusicWorks Help Given

Has anyone found a bug-free version of Bill Atkinson's (or any other public domain) Rolodex program?

There's a jukebox program on Compuserve that allows MusicWorks users to load up over 30 or so music files and play them back automatically.

David Hoefer, Townshend, VT

How To Learn About Computers

I am relatively new to computers, and would like to learn a great deal more about them. Can you suggest any courses or other ways of doing so?

Stanley M. Herman, Escondido, CA

To jump in and really learn to swim (as opposed to just learning "operations", like defining spreadsheets or data bases) we always recommend a three step course for learning about computers: 1) Write programs. 2) Write more programs. 3) Write even more programs. Follow that simple plan, and you'll be up to your eyeballs in no time.

If you like to experiment, explore, and tinker, then buy Microsoft BASIC 2.0, grab as many public domain BASIC programs as you can find at your local user group, sit down with your Mac and Microsoft's manual, and try to figure out what each program does and how it works, line by line. Start with the small programs first, and work your way up. Think of ways you'd like to make existing programs work differently, then change them, and observe the effect of your modifications.

If instead you prefer a more classic, textbook approach to programming, buy Macintosh Pascal along with a good tutorial, like A Primer on Pascal by Conway, Gries and Zimmerman, and learn to program step by step, from scratch. See if you can find and audit a nearby college course that uses Macs. Choosing Pascal first will help you avoid some of the bad programming habits that are easy to pick up when exposed to an older,

less elegant language like BASIC, but until new Mac-oriented books are published, old Pascal textbooks won't even hint at Mac's unique Quickdraw graphics, which are much easier to control from Microsoft's BASIC than from Apple's Pascal. -Editors

Atari About To Axe Apple?

I don't own a Mac or Lisa, though I did work in the same building as an Apple sales office in New Jersey. I program 8086-based systems and own an early IBM PC, now 41 months old. I think the Mac is a failed product, and that Atari stands a good chance at blotting out Apple's sun. With color and half to third the price on the "Jackintosh", Apple is squeezed by Atari at the low end and IBM at the high.

I liked Layered's ad in Signal #21, showing a root canal for Steve Jobs.

Patrick Banchy, New York, NY

Improving Reviews And Bypassing Protection

I liked your stories on Profit Projections and Microsoft Word in Signal #22, but it would be nice if you could cut down the size of your reviews by not telling how to use each program, but instead explaining what the program actually does. You would then have more room to run reviews on more programs, and that would be more help to me in deciding which programs will be best to use in my photography business.

I have seen ads for software that can copy protected disks. Does this mean I can copy Multiplan and then not have to re-insert the master when I use the copy?

John Grisham, Memphis, TN

If word processing programs A and B both offer paragraph selection, you might decide to buy either. But if you read that program A lets you select a paragraph only by clicking on the first word and dragging the cursor to the last word, while program B lets you select a paragraph by simply clicking anywhere in it, you might prefer B. How a program is used, not just what it does, is often an important measure of its usefulness.

As for the copying packages, yes, they're intended to be able to copy (or modify) a disk so that a copy thinks it's a master and works just like one, without bothering you about re-inserting the real master disk. However, you should check with the copy program vendor before assuming you'll be able to successfully duplicate any given disk, since new protection schemes seem to be hatched every day. -Editors

The Pricing Controversy Continues

Signal #23 stumbled in here two nights ago, the one in which the professor of musicology takes you to task about the true value of (his) books for "programming humans". I enjoyed his comment. There is some truth to all sides I have read thus far. Had I realized I was in a skirmish, I would have fired both barrels at first encounter in Signal #22. So, here is another shot:

No argument, software publishers have every right to charge the last penny the traffic will bear, but is it wise? For specialized software with a small market, there is no alternative, but that doesn't account for the data base program sellers. They claim that every Mac user has need of data base software, yet prices of those unspecialized applications are exorbitant.

The smart software houses know that the safest way to weather the coming shakeout is via a loyal customer base, one that perceives

quality and has reason to believe it is not being ripped off. Take Borland International for example. Their new and unprotected (!) TurboPascal (not for Mac) is \$69.95, while their big-name competitor offers a similar program for \$295. Borland's is a sophisticated and powerful package. Which company's customers will be content and loyal after getting the product home, only to discover what the competition is selling theirs for?

What we are talking about is not entirely economics. It is ethics and image.

Ned Raub, Waterford, CT

New Imagewriter Driver Available

If you haven't already done so, stop by an Apple dealer with a Laserwriter. The Laserwriter diskettes contain an enhanced Imagewriter driver that supports the 15" wide carriage Imagewriter, and also includes a 50% reduction feature.

Ted Johansen, Jacksonville, IL

Some Favorites Not So Appealing After All

At your suggestion, I contacted Brownbag Software in preparation for the review I was hoping to send you, and was told that there is a new version for 2.0 Microsoft BASIC of their "31 All-Time Favorite Programs". The person I talked to didn't have any specific details on the differences between the old and new versions. They did say the new version would run under both 1.0 and 2.0 BASIC.

If their new release runs on both versions of Microsoft BASIC; then the programs won't be of much interest to Macintosh users, since 1.0 has no provisions for menus, buttons, or edits fields, like 2.0 does. Those are the things that make Macintosh programs unique.

I tried running one of the 1.0 programs (Signal #23) and found the graphics did not work properly because the standard output window on 2.0 is different than 1.0.

The programs I tried on 1.0 didn't make full use of the mouse, but instead required frequent use of the keyboard. Also, most of the input routines weren't written to accept both upper and lowercase letters. Finally, the programs were not well documented, which makes revision or additions a chore.

Scott Hess, Chico, CA

How To Rewind Files

How do you start reading again from the beginning of a sequential Microsoft BASIC file once it has been read through initially?

Pat Borschowa, Hubbard, OR

First CLOSE the file, then re-OPEN it to start over, as implied on pages 303 and 305 in Microsoft's 2.0 manual. -Editors

LisaVision Address Revealed

In Signal #23, you described a \$79 pixel switch circuit board from LisaVision. Since I cannot phone the toll-free number you mentioned, would you give me their complete address?

P. M. Fischer, Tuebingen, West Germany

Our apologies to you and the other overseas subscribers who had to write us for the address and normal phone number: 10410 San Fernando Ave., Cupertino, CA 95014, (408) 446-3614. -Editors

Price Of A Disk Buys Fonts

Wayne State University has developed foreign language Macintosh fonts and is distributing them for a \$5 handling charge to

cover the cost of a diskette.

Currently available fonts include classical Greek, Polish, Armenian, Ukrainian, and Russian. Write to the Documentation Library, Computing Services Center, Wayne State University, Detroit, MI 48202 or call (313) 577-2144.

Received, But Not Yet Reviewed

This list is not compiled from press releases, but only from real products that have actually arrived at our office.

MacTalk: Telecomputing on the Macintosh, a book by Sheldon Leemon and Arlan Levitan. \$14.95, ISBN 0-942386-85-X, Compute! Publications Inc., 324 W. Wendover Ave. #200, Greensboro, NC 27408, (919) 275-9809.

ClickOn Worksheet, a desk accessory spreadsheet and chart display program for the Macintosh. \$79.95, T/Maker Co., 2115 Landings Dr., Mountain View, CA 94043, (415) 962-0195.

FastFinder, an alternative desktop environment for the Macintosh. \$100, Tardis Software, 2817 Sloat Rd., Pebble Beach, CA 93953, (408) 372-1722.

Scripture Bits/Electro Bits demo disk (English version), selected MacWrite and MacPaint collections of Bible references and electronic elements and computer symbols. \$10, Medina Software, 2008 Las Palmas Cir., Orlando, FL 32822, (305) 281-1557.

Airborne!, an arcade game for the Mac. \$34.95, Silicon Beach Software Inc., 11212 Dalby Pl. #201, San Diego, CA 92120, (619) 695-6956.

TexSys, a text file control system for the Lisa Workshop. \$49.95, ToolMasters Ltd., 1810 Michael Faraday Dr. #205, Reston, VA 22090, (703) 478-0220.

Helix User News, a monthly newsletter for users of Odesta's Helix. \$19/year, Helix User Service, 3511 Sheridan, Des Moines, IA 50310, (515) 279-4212.

Logo, a programming environment for the Mac. \$124.99, Microsoft Corp., 10700 Northup Way, Bellevue, WA 98004, (206) 828-8080.

Helix 1.13, an update for the Helix data-based information management and decision support system. Free to registered Helix owners, Odesta Corp., 3186 Doolittle Dr., Northbrook, IL 60062, (800) 323-5423.

Personal Computer Usage Record, a log for recording computer use time for tax purposes. \$2.50, Richard C. Foley, 1440 Japaul Ln., San Jose, CA 95132, (408) 926-6993.

CP/MAC, a Macintosh interpreter for CP/M applications. \$135, Logique, 30100 Town Center Dr. "O" #198, Laguna Niguel, CA 92677, (714) 953-8985.

MailManager 1.1, an upgrade to the list, label and form letter generator for the Macintosh. Free to registered MailManager owners, SofTech Microsystems Inc., 16875 W. Bernardo Dr., San Diego, CA 92127, (619) 451-1230.

Mincing Words With Hayden:Speller

by Brian Jay Wu

For the most part, I've been impressed with the products coming out of Hayden Software. Programs like Sargon, MusicWorks, and the DaVinci series of MacPaint drawings indicate that someone at Hayden certainly knows how to pick them. Those programs are well done and fun to use. That's why when I saw Hayden:Speller on the shelves of my local computer store, I bought it right away.

I'm a Unix hack, and so I've always been enamored of simple-but-effective programs. Hayden:Speller fits the bill, with some exceptions.

For a given text file, Speller presents the user with a list of words that seem misspelled. Besides plain text files, Speller is clever enough to read files generated by MacWrite, MacTerminal, and even Microsoft Word, though I couldn't verify that particular claim. However, I do know that version 1.0 of Hayden:Speller will not work properly with some of the latest beta-test versions of MacWrite.

The primary dictionary provided by Hayden claims to have over 20,000 entries, "covering 97% of the most frequently used words". After presenting any suspicious words not in the dictionary, Speller offers the user the chance to replace the word, or to accept the spelling as is, or to enter the spelling into a secondary user dictionary. That makes it possible to customize your own dictionary, adding words you use that aren't already saved there.

The program is relatively quick, due to the heavily compressed format of the primary dictionary. However, an experiment indicated a surprising number of missing words, which could be a major stumbling block to using the program.

When I first got Speller, I did what any Unix hack would do, and that was to compare a Unix dictionary against the Speller dictionary. Out of 7,451 words (obtained from a public domain Macintosh hangman game), Speller was able to recognize only 2,590 words, leaving an outrageous sum of 4,861 unrecognized words. That isn't very close to 97%. I can see why the Hayden dictionary doesn't contain words like "argillaceous" or "coccidiosis", since no one living even knows what those words mean, let alone uses them. But words like "academia", "wrathful", and "bordello"? Most people know those words, and some even use them occasionally.

While it is fairly easy to add one or two words to Speller's secondary dictionary, adding a large number of words en masse is much more difficult. Besides my Macintosh, I used two other computers and numerous uploads and downloads to get Speller to integrate my 4,861 new words. It took me about five straight hours, though that figure is somewhat exaggerated, considering I stumbled several times. There were numerous "minor" differences between the three computer systems that caused difficulties in transferring files, so one can assume that with proper equipment and knowledge of the procedure, the time can be cut down at least by half, and probably even more.

Speller allows two ways to enter a new word into the dictionary. For each separate new word that Speller finds, you can indicate that you wish to enter it (a slow process for 4,861 words), or you can make a separate

list and run it through a neat conversion program supplied. The conversion program allows a simple list of words to be "transformed" into a dictionary, and vice-versa, but Speller's main dictionary cannot be decoded.

To supplement Hayden's main dictionary with the Unix dictionary, I first had to get Speller to identify the 2,590 words it already knew. But checking the total list of over 7,000 words I had was difficult, because Speller has a limit of only 1,500 different words per check! So I had to split my list into individual pieces, and then run them through Speller separately.

Speller can print the list of misspelled words, but cannot send the words to a disk file. That meant that if I wanted to have the computer automatically generate my custom secondary dictionary, I would have to capture the output going to the ImageWriter, which I did by connecting a second computer to the Macintosh printer port. That output was then uploaded to a third machine running Unix, which provided some convenient filtering tools for stripping out Imagewriter control codes, in order to convert the printer output into a simple ASCII list. I then downloaded the file back to the Mac, and finally saved it as a new secondary dictionary.

The whole process wasn't exactly smooth, and five hours long to boot, but the results were worth it. Hayden:Speller can now account for every word that my Unix speller can, and that's excellent. There is a drastic increase in search time as Speller runs through the secondary dictionary (Speller doesn't seem to perform any compression on the secondary dictionary, since the size of that file is about the same size as the original text list entered), but after all, the purpose of a speller is to catch errors. If it's slow, well, so is a pot of fresh coffee, right?

Most of my efforts could have been avoided if Speller would dump suspicious words directly to disk instead of to a printer, or if Speller could check more than 1,500 different words at once. In any case, my 48K custom dictionary (which can be easily converted back to a straight text file) is available to anyone who wants it. It's been placed in the public domain and is available on disk from the Ventura County Mac Club (805-499-2824).

I hope Hayden will take notice and install an expanded dictionary so users don't have to. I'd also like to see Hayden make some of the improvements that I've suggested here, since the whole point of providing a customizing option in a spelling checker is to allow users to easily create a personal dictionary.

This Month's Mailbag

Copy II Mac, Dollars And Sense, MacLion

I would like to comment on your review of Copy II Mac in *Signal* #20. I generally agreed with your analysis, but I found the MacTools module more useful than you did for copying. I have a tendency toward shuffling System files and Finders around, so I appreciated the piecemeal approach facilitated by MacTools.

I'll inspect a protected disk to locate the copy protection file, choose Unprotect from MacTool's menu, then copy the application and the protection file to a second disk. Once the desired items are on the new disk, the copy protection files need to be toggled back to Protect, or the applications won't work. That was how I set up Microsoft Word on each of my "data" disks, allowing me to have a nice 321K System file full of fonts on the system disk.

I noticed in *Signal* #21 that Monogram's Dollars and Sense is included in your *Received, But Not Yet Reviewed* column. I've had some experience with it that might be of interest. For the month of December and part of January, I spent untold hours entering income and expense data for the entire year of 1984. It was worth it. I think Dollars and Sense is a smooth and well-coordinated program, implemented for the most part to take advantage of the Mac environment. I was pleased at the number of keyboard commands available as an alternative to using the mouse, and the variety of searches available for locating a particular record.

There are two things about Dollars and Sense that gripe me, and they both have to do with the reports. The first is the requirement that reports be "sent" either to the screen or the printer. It seems more Mac-like to display what you want to see printed, then choose Print from the menu and let 'er rip. That's not a major problem, though. The problem that seriously affects the utility of the program for me is the total rigidity of the report formats. The reports are well-designed in general, and there is an admirably large selection of useful report and graph formats. But what I would like to see is the capability of creating a MacWrite document from reports (and perhaps a MacPaint document from the graphs) for the freedom to pare unneeded parts, change font style and size, and generally tailor things to my preferences. That would make it possible for Dollars and Sense to produce customized, professional-looking reports that could be incorporated into a larger document.

More recently, I've been putting in some time with the new MacLion database from Computer Software Design of Anaheim. So far, I've gotten through the 240 or so pages of the basic tutorial manual, but haven't yet delved into the other manual that deals with the built-in programming language called Leo. According to the vendor, MacLion will support a database up to almost two megabytes, soon to be upgraded to sixteen. I've heard it's appropriate to describe Leo as Forth-like, and that MacLion itself was written in Forth. In glancing over the Leo manual, I saw a section explaining reverse polish notation... I hope the vendor was right claiming that Leo is far easier than DBase II. Fortunately, there are appropriate Help screens for virtually every situation.

I thought the tutorial was well-written, with only a couple of difficult spots, but there are a number of discrepancies between it and the program, and within itself. It's kind of shaggy around the edges, like a lion, and I got the overall impression of a need for polishing. There are inconsistencies within the program in how similar things are done in different places. For example, scrolling is done by "/" commands from the keyboard in some places, and by scroll bars in others. Cursor movement and editing is by "<" and ">" keyboard commands in some places, and by Cut, Paste, and Copy from a menu in another, which was the only MacLion menu to have the familiar keyboard command alternatives. Like Dollars and Sense, reports are "sent" either to the screen or the printer. Desk accessories are not accessible. MacLion is generally quite speedy, but when compiling an input screen or report format, MacLion is writing its own Forth code, and it can be very slow.

I have had no previous experience with database programs, and I feel somewhat intimidated by the demands MacLion makes. I

appreciate the apparent thoroughness of the tutorial, but wish there was more advice on the structuring of a multi-relation database, or a reference to a source of additional information on the subject. Perhaps unreasonably, the lack of knowledge about database structure has stymied me, for I've done nothing further with MacLion since finishing the tutorial. Maybe I'd better go through that tutorial once again as a refresher, and then dive into setting up a database...

Douglas G. Miles, Ellensburg, WA

Doesn't the Print Window menu option in Dollars and Sense provide the "view, then print" capability you're asking for?

We tend to automatically cringe whenever exposed to anything having to do with reverse polish notation, which is a convenience for machines, not humans. -Editors

Word Can Do Banners

Contrary to the claim in your review of Microsoft Word in *Signal* #22, I have enclosed a sample showing Word can do a banner headline across the tops of multiple columns on the same page. I can't take credit for it though, since I had to write Microsoft for the technique.

The banner is treated as a running head. First select the banner, then choose Format Running Head, answer the questions, and then set divisions (such as three columns per page) per your requirements. Be sure the top margin is large enough to meet the space requirements of the running head.

David A. Newton, Upland, CA

We've also heard about a few bugs, such as problems with decimal tabs, and the resetting of a file's creation date after a save. -Editors

Pixel Switch Available

I've heard that Capitol Computer in Sacramento is selling a switch that lets you change the pixel aspect ratio on an XL back and forth between Lisa and Macintosh settings. Know anything about it?

Ernie Bullock, Davis, CA

The switch was invented by a former Capitol Computer employee who is now with Apple tech support. He sold the product rights to LisaVision of Redwood City, California, and that company has shipped about a hundred of the devices so far. The \$79 circuit board and switch clip onto Lisa's video board and are intended for installation by dealers, but you can order it yourself by calling 800-538-8157 (use 800-672-3470 in California), extension 816. -Editors

Zapping Is Sometimes Preferred

I largely agree with your assessment of Copy II Mac in *Signal* #20. A similar product is Mac Zap, from Micro Analyst in Austin. Both products will copy disks and to some degree examine and edit disks, but the two are aimed at different audiences.

Mac Zap is aimed at a more technical user. The disk copy utilities seem almost incidental in Mac Zap, with RAM and disk block examination and editing being the major functions.

The Mac Zap manual includes more information on disk structure and content than I have seen anywhere else except *Inside Macintosh*. I would rate their 51-page manual in the good to very good category.

Mac Zap displays all 512 bytes when examining a disk block. MacTools only shows 256, though in an easier to read, larger font. Mac Zap also keeps the twelve bytes of associated disk block tag data just

a click away.

All Mac Zap read and write operations include full error codes and even hints at what to do for some errors. Combined with the documentation, the user at least has a chance to correct the problem. For example, while Mac Zap won't normally copy itself, the information provided does allow one to figure out how to do it. Copy II Mac 1.02 will not produce a runnable copy of Mac Zap using either the sector or bit copy modes. Mac Zap encodes a unique serial number, as well as some other gems, that apparently foil Copy II Mac.

Besides reading, editing, and writing of disk blocks and RAM, Mac Zap supports searches of strings up to 2,048 bytes long on disk or in memory. Search results are returned as longwords containing a block number and relative location for disks, or as longword addresses for RAM. Disk comparisons require two drives. Mac Zap also includes a useful stand alone 512K disk copy utility very much like the standard 128K disk copier.

The usual volume and file information is available as in MacTools, but Mac Zap goes a step further and also displays a map of 400 allocation blocks.

Locked, invisible, bundle, system and unprotected bits are easily toggled. You have to look for and edit other bits the hard way.

Although the documentation lacks an explanation about it, you can set abnormal address and data markers, like those used in Apple's protection schemes.

A file which has been deleted after being trashed can still be recovered if no subsequent data has been written over the relevant blocks. Mac Zap's file recovery utility will show any missing resource or data blocks and give the user the option to abort a recovery at the proper points.

Copy II Mac and MacTools are easier to use than Mac Zap, but less flexible and less powerful. In Mac Zap, track access, automatic setting of search limit parameters, and a better co-ordination of a file's resource and data forks could all use a little work.

For a quick copy, I'd probably use Copy II Mac, but Mac Zap wins hands down for more serious use. I own and use both of them.

Some companies go to great lengths for copy protection schemes. I don't like obtrusive, hassle-causing copy protection, and I hesitate buying copy protected software. The first crashed disk convinces even the unbelievers. Backups are vital for any software.

Why don't more companies encode a serial number with no copy protection? The company then does have a way to determine the source of illegal copying, but doesn't hassle the registered owner.

Mike Johnson, Trenton, OH

Serialization makes mass production inconvenient, since each copy must be specially marked. It's also rather passive, doing nothing to actually make copying physically difficult. -Editors

Shareware Blues

I'm enclosing a review copy of DiskInfo, my public domain desk accessory. While a lot of people like it (because it shows how much space and what files are on your disks, lets you delete files, and access scrapbooks on multiple disks), a lot of other people either don't like it or are too dishonest or lazy to send in their shareware fee. (At the MacWorld Expo, a speaker praised DiskInfo to a seminar crowd. He hasn't yet sent in any money...) Since we're a design house, not a marketing company, we'd prefer people obtain DiskInfo from their

user group or from Compuserve. If they can't, then they can send \$10, a disk, and a 39¢ SASE to Maitreya Design, Box 1480, Goleta, CA 93116.

Sorry I missed the issue where you thought the phone book accessory was in the public domain. I think part of the problem is that there are fonts and accessories floating around that seem to be public domain but aren't. It's sometimes hard to indicate authorship of an accessory without being annoying. I really would prefer not to have to put a "guilt message" in the middle of DiskInfo. The initial release had it buried in the menu, where nobody saw it because they didn't know there was a menu, but I think that's better than Don Brown's Desk Accessory Mover, which is obnoxious by demanding I wait while it draws a screen.

Incidentally, shareware doesn't seem to be a worthwhile way to go on the Mac. I really like the concept, since the user can try before buying, it's cheap, gets to market quickly (it took me eight days from back of envelope to released product), and the developer doesn't have to worry about marketing. But I estimate that fewer than 1% of the copies of DiskInfo have been paid for. If it were 10%, I'm sure I'd still be complaining, but at least I wouldn't be broke.

David Dunham, Goleta, CA

Font Editor Instructions Missing

As you suggested in your reply to a letter in *Signal* #20, I got a copy of the font editor from a user group. Unfortunately, it didn't come with directions, and all that I've done with it so far is to crash my poor Mac. Font editing is trickier than I thought.

Marge Nasta, Pittsburgh, PA

Finding a crash-proof font editor is the tricky part. A number of user group newsletters have published instructions for using Apple's notoriously buggy font editor. One of the most complete font editor tutorials we've seen was written by Fred Huxham for the Berkeley Macintosh Users Group Spring 1985 Newsletter (send \$15 to 1442A Walnut St. #153, Berkeley, CA 94709, to join and receive a copy of that 118 page issue). Font editing can also be accomplished with the Resource Editor that has been shipped with recent versions of Apple's Software Supplement for developers. -Editors

MusicWorks Problems And Expensive Software

I want to compliment Ned Raub for his comments about MusicWorks in *Signal* #22. I've had similar experiences with that software and went so far as to write the publisher about them. To date, I have received no reply. On the other hand, I wrote the makers of MusicType at the same time. I received a detailed answer, wrote the company another letter, and ordered and received their product, all while waiting for word about MusicWorks.

As mentioned in the original *Signal* #20 review, the printing produced by MusicWorks does not follow standard musical notation conventions very closely. Here are a few more problems you haven't already described:

- The bass and treble clefs are too close together.
- An atypical blank space follows the key signature if it doesn't contain the maximum number of sharps or flats. Very few pieces actually use the maximum.
- A bar line always follows the meter sign. In real music, a bar line never follows the meter sign.
- The meter sign (with its

trailing bar line) is displayed at the beginning of each new line of music. That isn't done in real music.

- Notes in one part of the printout overstrike notes and rests in another part. Note stems, flags, and rests can become tangled in an unreadable mess. Note beaming isn't provided, so the logic of the rhythmic organization is often concealed. If many rests are present, the rhythm patterns have a strange look about them. The result can be a pseudo-musical score, unreadable by even the most experienced musician.

- If chords are involved, it is better to write out the music before entering it into MusicWorks. Since the printout is useless, the only reason for entering it on a Mac instead of playing it on a piano is to hear what the kazoo menu option sounds like. (It doesn't sound like a kazoo.)

As a music "processor", MusicWorks is a toy, a curiosity which is generating a lot of uploads to Compuserve. It is riddled with misconceptions about music scoring. Since I own a bonafide copy, I asked the publisher for updates in the event the company improves the score printing routines. In the meantime, I am using MusicWorks as an example of what-not-to-do in music graphics displays at the facility where I teach graduate students specialized programming techniques in music.

I am also an author, and have been working on a particular book for ten years. The book represents a lifetime of experience on the subject of identifying and applying musical thought processes. The book is full of ideas for a reader to consider. Is it just a "frozen display of data", as you called books in your response to Ned Raub? Not on your life. If the book gets published (in a much more competitive field than commercial software), it might bring \$25 retail. There isn't a piece of software available that can do what this book does. It contains the basis for an effective expert system in music making. It is used to program humans to think, not machines. In fact, I am writing software to support some of its applications. Of the book's several hundred applications, software is available on the market to support perhaps a dozen of them, at \$30 to \$175 per disk with usually minimal documentation.

Ned Raub is dead right. Software prices are too high relative to content, the effort that goes into its creation, and the impact of the product on the user.

Kenneth R. Rumery, Flagstaff, AZ

Just as apples shouldn't be priced in consideration of oranges, the same goes for software and books. We don't think you should try to make the pricing policies of one work for the other. Maybe software prices are high relative to content and effort, but that's not how software is priced. Software is priced according to what the market and the competition will bear. -Editors

Subscriber Interests And Activities

Douglas G. Miles, Ellensburg, WA: Other than for delightedly writing lots of letters and essays, my Mac is helping me with apartment house operations. I have composed a rental agreement that not only looks professional, but is customized to my operation. Our rules lists and other communications with the tenants, such as memos and rent-raises, are enhanced by the Mac. I have been using Dollars and

Sense and Multiplan to keep track of financial matters.

John Grisham, Memphis, TN: I own a small photography studio and my Mac has come in very handy in doing my bookkeeping, customer lists and inventory.

Wayne E. Thompson Sr., Raleigh, NC: I use my Mac in my real estate business for word processing and data storage.

Noel McRae, Kelso, WA: I chose the Mac over other computers specifically to work on an English-Greek New Testament. I am using Philip Payne's great MacGreek font and am having a ball, though it is tedious work. My other interest is to eventually develop a search and rescue simulation program which could be both entertaining and educational.

Helix Arrives At Signal

Odesta Corporation (3186 Doolittle Dr., Northbrook, IL 60062, 800-323-5423) has been advertising its Helix database management software for about a year before finally starting shipments a few months ago. We received a copy a few days before we went to press this month, giving us just enough time to do some preliminary playing with the product. What follows is a compilation of some of our initial impressions.

We found that the Helix program, which needs 512K of memory to execute, is a 258K file that gobbles up most of the space on a bootable disk. You really need an extra floppy drive or a hard disk if you expect to get any work done. You can't even use the Guided Tour disk that's supplied (with an audio cassette) unless you have an external floppy. We tried running the Tour on an XL after following the hard disk install instructions described in the user's guide supplement, but the Tour would only crash.

We then skipped the Tour and tried the excellent sample databases provided on the "resource/work" disk. The examples are well done and show off a lot of Helix features, but they're designed for inspired users willing to do a lot of exploring and experimenting. The documentation really needs at least one step-by-step example that creates an application from scratch. We noticed a few minor icon name discrepancies between the demo files and the documentation, but nothing that was too confusing.

We like the online help displays, especially the way they can be customized. Helix should be a great system for developers who want to create custom, vertical application packages. However, some features seemed too flexible, and are going to prevent the creation of locked, end-user-proof software. For example, the specifications that define a Selection window for entering or displaying data can be called up and changed at any time. That's great during development, but there should be a way to lock it and prevent changes after the application has been debugged.

Helix does an automatic save every time the system is idle for about 30 seconds, but we found that feature distracting and annoying and wish there was an option to disable it.

The program is so visually rich with icons and windows that it's initially very confusing, but we were surprised at how quickly we began to understand the system. Still, it's definitely not software that can be easily picked up by a casual user. While simple in concept, Helix is not straightforward.

We noticed that it would be a lot easier to explore Helix, especially

the sample databases, if its scroll bars would disable from grey to white (like the Finder), whenever there are no more icons to scroll into view. Exploring would also be easier if the packaging were a little simpler. Odesta succeeds in promoting a first-class image with their "imitation suede, silver-stamped, edge-stitched, inner-lined, chrome-cornered, squeeze-operated, 18-ring binder" for storing the manual, three disks, cassette tape, errata sheets and note pad, but the binder is really kind of awkward to use. We recommend taking the manual out, fitting it with a plastic comb binding, and using it separately.

We also noticed that, although the documentation uses green and black text, all the labeled illustrations of screen displays are in black, so the explanatory labels and arrows don't stand out from the illustrations.

Helix appears so versatile, that it's going to take quite a bit of study to determine whether this \$395 package should be preferred over the competition. In the meantime, we're being impressed by its flexibility, its apparently adequate speed, its novel icon-based approach to defining databases, and the fact that it hasn't crashed on us.

Received, But Not Yet Reviewed

Mighty Mac, a personal information manager and desk organizer for the Macintosh. \$99, Advanced Logic Systems Inc., 1195 E. Arques Ave., Sunnyvale, CA 94086, (408) 730-0307.

UCSD Pascal, a compiler, editor, debugger and utilities for the Macintosh. \$295, SofTech Microsystems Inc., 16875 W. Bernardo Dr., San Diego, CA 92127, (619) 451-1230.

Mac Zap, utilities for manipulating Macintosh memory and disks. \$60, Micro Analyst Inc., Box 15003, Austin, TX 78761, (512) 926-4527.

Becoming a MacArtist, a book by Vahé Guzelimian. \$17.95, ISBN 0-942386-80-9, Compute! Publications Inc., 324 W. Wendover Ave. #200, Greensboro, NC 27408, (919) 275-9809.

Baron, a real estate simulation, **Millionaire**, a stock market simulation, and **Tycoon**, a commodity market simulation: three financial education games for the Macintosh. \$59 each, Blue Chip Software Inc., 6740 Eton Ave., Canoga Park, CA 91303, (818) 346-0730.

MacNotes, a newsletter for developers. \$60/six issues/year, Aegis Development Inc., 2210 Wilshire Blvd. #277, Santa Monica, CA 90403, (213) 306-0735.

Consultant (pre-release version 1.016), Mac software to help "knowledge workers" use their whole brain to think and work more productively. \$200, Organization Development Software Inc., 1605 S. Garden St., Palatine, IL 60067, (312) 397-1684.

QuickSet, a calendar/appointment book, note filer, financial and statistical calculator, desk directory/phone book and file encryptor for the Macintosh. EnterSet Inc., 410 Townsend St. #408, San Francisco, CA 94107, (415) 543-7644.

The Macintosh Buyer's Guide (Spring 1985), a quarterly directory of available products. \$5 (\$10/year), Redgate Publishing Co., 3381 Ocean Dr., Vero Beach, FL 32963, (305) 231-6904.

PIC Privacy: Personal-Confidential, a tool for encrypting and decrypting Macintosh files. \$95, MCTel, 3 Bala Plaza E. #505,

Bala Cynwyd, PA 19004, (215) 668-0983.

Professional Composer, a music editor and player for the Macintosh. \$495, Mark of the Unicorn Inc., 222 3rd St., Cambridge, MA 02142, (617) 576-2760.

TurboCharger, memory cache software for speeding up the 512K Macintosh. \$95, Nevins Microsystems Inc., 210 5th Ave., New York, NY 10010, (212) 563-1910.

Macintosh Public Domain Software, a catalog of available disks. \$1.95, The Public Domain Exchange, 673 Hermitage Pl., San Jose, CA 95134, (408) 942-0309.

Signal #22
March 1985

Do You Need Microsoft Word?

by Geoff Puterbaugh

Several months after being announced, Microsoft Word is finally in the stores (Microsoft Corp., Box 97200, Bellevue, WA 98009, 206-828-8088). Microsoft Word certainly bears comparison with MacWrite, its only current competition. Can you continue to get along with just MacWrite? Or is Microsoft's new \$195 word processor a product you'll prefer to have instead?

The state of MacWrite is a little puzzling. While more and more people are buying or upgrading to 512K systems, Apple has been "pre-releasing" disk-based versions of MacWrite which create files incompatible with the old memory-based MacWrite. A problem with that original MacWrite is its relatively tiny capacity of about ten pages on a 128K Mac. However, once you upgrade to a Fat Mac, MacWrite can hold as many as 70 pages, which is probably enough for most users.

If you still have a 128K Mac, the disk-based MacWrite gives you the larger capacity, but it is buggy and has not been "officially" released yet. Many users are eager to get the new MacWrite in order to use the Mac Spell Right integrated spelling checker from Assimilation Process, which requires a 3.5 or later version of MacWrite. But now Microsoft Word is another choice for those who have been waiting for a thoroughly debugged version of a large capacity word processor. Microsoft Word is loaded with features, many of which are not present in MacWrite.

For example, Word allows easy selection of characters, words, lines, sentences, and paragraphs. MacWrite lacks the final three. To select a sentence, you simply place the cursor in the sentence and Command-Click. To select a line, you move to an invisible left-hand control bar to make the cursor become a right-pointing arrow. One click then selects the line, and a double-click selects the paragraph. Another time-saver is Shift-Command-Click, which selects the end of a sentence from the current insertion point to the period. Option-Backspace, which seems to be undocumented, deletes the previous word, while Shift-Backspace selects the previous word and goes on selecting one word at a time backwards as long as you repeat.

Playing with the special keystrokes reveals Word's slightly different concept of "undo". If you use Option-Backspace to remove several words, Undo will restore them all. You can even do a Change All command and a subsequent Undo will reverse every change! (MacWrite just warns that isn't

possible.)

Another great feature is multiple windows and having up to four simultaneously open files. That makes it easy to copy text from one document to another, or to refer to an earlier memo while writing a new one, and so on. Windows can also be split horizontally, allowing you to look at two parts of one document simultaneously, like on a Lisa. Microsoft has also included their handy BASIC 2.0 feature for window resizing. If you double-click on a title bar, the window will "zoom out" to fill the entire screen. Another double-click zooms it back to where it was. That's a real time-saver which other developers would do well to imitate. It's so handy it ought to be part of the standard Mac user interface.

When one paragraph needs to be formatted like another, you can click in the paragraph to be changed, go to the paragraph with the format to be copied, and Command-Option-Click in the left-hand control bar. A similar feature exists for setting character formats such as font, size, and style. Just select the text that needs to be altered, move the cursor on top of the text which has the format to be copied, and Command-Option-Click.

Similar convenience exists in the Find/Replace process, where a command to replace "thi" by "the" will show consideration for case. If Word finds "Thi", it will replace it with "The", not "the", as both MacWrite and Mac Spell Right currently do.

A particularly difficult feature to provide is footnotes, and here Word excels. You can ask for footnotes to be automatically numbered, or use your own footnote indicators. Footnotes can be displayed at the bottom of the page, or at the end of chapters. Copying text will also copy any associated notes, with automatic renumbering. Word also allows printing two to six columns per page. Unfortunately, only one long column is displayed on the screen. Page composition is performed during printing, so you cannot tell where the actual column breaks will occur until you print the document.

After discovering those features, I was tempted to ask Word to print some pages in two columns, along with footnotes at the bottom. (The manual doesn't really say whether that combination is possible or not.) Word performed perfectly, setting the footnotes just as a typesetter would have. In an attempt to make it fail, I added little graphic images less than a column wide, and Word handled them without a hitch. By then, I was impressed. (However, note that Word is not a substitute for a program like MacPublisher. While you can have many columns on one page, with graphics in any column, it is impossible for Word to include a banner headline across the same page.)

I know someone who has installed so many fonts in his system that he has run over MacWrite's menu capacity of 20 fonts. In Word, you select fonts from a scrolling dialog box that allows 32 fonts. You may also select any character size by simply typing in the point size desired. The results may look ragged on the screen, but it should be handy for working with the LaserWriter, which can support any size for any font. Word also supplies a unique option for display called Small Caps, which displays text using two sizes of capital letters, just as some people habitually print.

Word supports the same keyboard commands for type styles as MacWrite, except that a shift key must be added. In MacWrite, you type Command-B for boldface. In

Word, it becomes Shift-Command-B. The shift key is necessary because the unshifted combinations are used up by Word's vast repertoire of commands. For example, Command-B is the Clear operation. Oddly enough, these commands are not toggles in Word like they are in MacWrite, and you must type Shift-Command-Space to return to plain text. Microsoft should change that.

Word also provides heaps of key sequences for those who do not like using the mouse. Wordstar users will probably love Command-P for Print, Command-O for Open, Command-D for font selection, and so on.

Naturally, mail merge and its ability to generate form letters is available. There's also support for daisy-wheel printers, page numbering in Roman or Arabic numerals, and numbering odd or even pages. Another feature lacking in MacWrite is the "soft hyphen". With a Command-Hyphen, you can tell Word it may insert a hyphen in that place if necessary.

By just clicking in a paragraph and using a menu, you can perform left, center, right and full justification without hauling out rulers. The repertoire of left, right, decimal and center tabs is also greater than what's in MacWrite.

The memory management in Word seems a lot smarter than the scheme employed by the disk-based versions of MacWrite, although the recent 3.911 MacWrite shows some substantial improvement. It seems to be roughly true that Word will hold the file in memory if possible. That is not what the early versions of disk-based MacWrite do, as anyone who has tried a font or margin change on a 35-page document can tell you. If you want to change the whole document from Geneva to New York, you might as well go brew coffee while MacWrite works on it. Word does it instantly, though the performance is somewhat worse on a 128K Mac. When the file overflows RAM (which is really big on a Fat Mac), some sort of intelligent paging algorithm seems to be used, since you can still scroll from beginning to end very quickly.

When you quit Word after significant clipboard work, you get a dialog box which asks the simple question, "Save large clipboard?" What brains! I wish every application would give us this choice. In fact, the Finder should have an Empty The Clipboard command on the Special menu to help prevent a lot of disk swapping.

So far I have not found a bug in Word, so I'll just provide a couple of gripes, besides the lack of style toggles mentioned earlier. First, the default font in Word is New York, not Geneva. MacWrite wisely changed it to Geneva long ago. In a heavily formatted paragraph, Word cannot keep up with a fast typist doing a large insert, and it's possible to get fifteen or more characters ahead of the software. There is no built-in spelling checker, though Microsoft seems to recommend using the one from Hayden, since they include a promotional flyer with Word. There is no facility for generating an automatic table of contents or index. There is no provision for automatic section numbering.

In general performance, Word seems to match or even surpass the original MacWrite. On a 128K Mac, Word runs a little slower, but not nearly as bad as some pre-release versions of Word I saw which were running through a P-code interpreter. The program itself is about 126K of object code, so you can expect disk swapping on the smaller Mac, and you can be sure that high-quality printing will be slower. The 128K Mac settles into a definite print rhythm of four passes of the print

head, a disk access of a few seconds, four more passes of the print head, and so on. On the 512K Mac, the long disk access pause is replaced by a short computation of less than half a second. You can hear the same printer rhythm, but it is a lot faster. Overall, the performance on the larger Mac is highly satisfactory. For an 85K file of 38 single-spaced pages with 225 footnotes, an Open took just 10 seconds, a Save took almost two minutes, and Repaginate, which does a lot of computation and disk I/O, took a bit over four minutes.

Word deserves your serious attention if you use your Mac for word processing to any significant extent. Microsoft deserves congratulations for having the patience to wait until a first-rate product was ready. They probably learned from their experience with Multiplan. Good for them! I give Microsoft Word a hearty Thumbs Up.

Club Notices And Newsletters

New Clubs Forming

Mac users in Sweden, contact Keith Elkin, Dianavägen 30, 115 43 Stockholm.

Tulsa Users of Macintosh Society, Box 470564, Tulsa, OK 74147.

Lisa users in New Haven area, contact Robbie Keefer, 8 Griffing Pond Rd., Branford, CT 06405, (203) 481-6220.

Newsletters New To Signal

MacCountry News, North Coast Mac User's Group, 503 Marylyn Cir., Petaluma, CA 94952, (707) 763-1124.

The DeskTop Journal, Yale Mac Users' Group, \$20/first year, Box 220 Yale Station, New Haven, CT 06520, (203) 436-5112.

BETA Macs News, Beautiful East Texas Area Mac Users, \$15/year, 1601 Cindy Lou, Henderson, TX 75652.

Scrumpy Newsletter (Mac supplement), Orange Apple Computer Club, \$20/year, 25422 Trabuco Rd. Bldg. 105 #251, El Toro, CA 92630, (714) 840-0048.

SMUG Newsletter, Stanford Macintosh Users Group, Box 6805, Stanford, CA 94305.

MacNuggets, Carnegie-Mellon Macintosh Users Group, \$24/year, 5115 Margaret Morrison St., Pittsburgh, PA 15213.

MacVisions, Hawaii Macintosh Users Group, \$12/year, Box 75537, Honolulu, HI 96836, (808) 235-4609.

Old Friends Keeping In Touch

Mac News, Eugene Macintosh/Lisa User's Group, \$15/year, Box 10988, Eugene, OR 97440, (503) 345-2393.

FatBits, Conejo Valley Mac Users Group, Box 7118, Thousand Oaks, CA 91359, (805) 499-2824.

Mac'nTalk, Victoria's Mac User's Group, Canadian \$40/year, Box 7075-D, Victoria, BC V9B 4Z2, Canada.

Icon, Association of Apple 32 Users, \$40/first year, Box 634, Santa Clara, CA 95052, (408) 988-5594.

San Diego Mac News, San Diego Mac User Group, \$15/year, Box 12561, La Jolla, CA 92037.

VMAC News, Ventura County Macintosh Club, \$21/year, Box 7754, Oxnard, CA 93031, (805) 499-2824.

Mac Digest, Los Angeles Macintosh Group, \$1.50/issue, 12021 Wilshire Blvd. #349, Los Angeles, CA 90025, (213) 392-5697.

Subscriber Interests And Activities

James A. Tolbert, Albany, OR:

I teach printing technology courses at Linn-Benton Community College, and our typesetting course has a Compugraphic system that uses imbedded commands for formatting text. You should see the students' eyes light up when the Mac screen immediately shows them what they have formatted, rather than a screen full of command codes.

Ed Tucker, Cairns, Australia: I have been using Brock Keystroke for the Lisa desktop for my dental practice.

DeAnna Blair, Sac City, IA: Our family owns and operates a small fifteen-unit motel. I use my Mac for professional looking room and office signs, telephone information, daily occupancy sheets and routine correspondence.

Mark Woodworth, Aiea, HI: We use the Macintosh in our church. We made a really nice cookbook for a fundraiser, and use the larger font sizes to make large-print editions of publications, like our bulletin and song book for the visually impaired.

Thomas F. Booze, Manhattan, KS: I am using my Macintosh to type my Ph.D. dissertation for my degree in toxicology.

Jim Banks, Alcoa Center, PA: We have on the order of 50 Lisas and at least 200 Macs here at the Alcoa Technical Center. Both machines are used as personal computers and as VT100 or Tektronix terminals for our various DEC computers. I use them both, but Lisa is by far my favorite.

Paul A. Thomas, Lafayette, IN: I am a graduate student in business, and I use my Macintosh to write essays for my thesis. Since I use a lot of math and tables in this work, I'm interested in exploiting the Mac's ability to do technical word processing. I've used Apple's Resource Mover and public domain fonts to format a disk-based version of MacWrite for technical text editing. I find the Princeton font and the Princeton version of Geneva especially useful, although they sometimes severely violate Mac's "what you see is what you get" standard. I'm always on the lookout for more public domain fonts, and I would have a definite use for Princeton in 9 and 10 points and a smoother version of Princeton Geneva in 24 points. I also see a need for a technical superset of Monaco in ThinkTank.

Jeffrey Groteboer, APO San Francisco, CA: I am in the U.S. Navy stationed in Korea, and I use the Mac for word processing and keeping administrative records. Is there anyone else in Korea who owns a Mac?

Michael L. Johnson, Trenton, OH: I use my Macintosh for making neat forms, tables, and data entry sheets at the Environmental Protection Agency. I'm thinking about a Filevision presentation for our agency's annual report. I use the Mac at home for word processing, memos and notices for church, doodling with MacPaint, and ruining my sleep with 3:00 AM sessions with MacForth and Assembler.

A Mac Product For Simple Profit Tests

by L. Mawby

Profit Projections/Breakeven Analysis (or simply "Profit Projections" for the rest of this story) is a \$65 program for the Macintosh from Harris Technical Systems Inc. (Box 80837, Lincoln, NE 68501, 800-228-4091), a company best known for their

agricultural software. Profit Projections is a software worksheet divided into sections for Income Sources, Variable Expenses and Fixed Expenses. Profit Projections calculates profit or loss (income minus the sum of variable and fixed expenses), and can generate three types of graphs to show the results. A pie chart shows profit and the five largest expense items as a percentage of income, a breakeven graph shows the breakeven point in several ways, and the profit comparison graph shows the relative profitability of several enterprises.

Profit Projections is easy to use. The short manual is nothing special, but you probably don't need it anyway, since a Help menu nearly makes the manual superfluous. Several levels of help are selectable, from automatic prompting at each entry field, through selectable field prompting, to a general help screen that outlines what Profit Projections expects in each field. Completed example worksheets are provided for manufacturers, sales agents, law firms, renters, retailers, and day care centers. Also provided for product service, sales agent, retailer, rental and general business projections are "standard" forms, with some typical fields already filled out. If you don't need those levels of help, the basic "scratch" worksheet that's provided is the best place to start.

The scratch worksheet begins with fields for entering a business name, enterprise name and enterprise quantity. Data entry is simple. Enterprise quantity is the interval that the projection covers, such as 5 years or 12 months or 1,000 packages. Income sources are entered on one line for each item, with fields for name, rate per enterprise quantity unit, and price per unit. Variable expenses also occupy one line each, with fields like those for income sources. Fixed expenses also each have one line, with a name field and a field for expense per enterprise quantity unit. After each line is entered, the program totals income, variable expenses, and fixed expenses, and calculates profit. Also calculated is each income and expense item's percent of total income.

The manual does not specify a limit to the number of income or expense items. About 24 items fit on a single printed page. However, the program allows more during input and correctly prints multiple page reports. If the total dollars for any item exceed \$9,999,999.99, that field overwrites the one to its left, and the output is hard to read.

To make the best use of Profit Projections, it is necessary to split up the income sources of any but the simplest business into separate enterprises, and generate a projection for each enterprise. Profit Projections will accept several income sources in one projection, but only the first income source line is varied when producing a breakeven graph.

The View menu allows instant viewing of the different graphs, and also permits splitting the projections report window into two separately scrollable windows. This feature is very handy when "what if" income or expense item entries are made. Even more powerful is the split projection report and breakeven graph option. This shortens the projection report window and tucks the breakeven graph below it. Each entry into the projection worksheet instantly updates the breakeven graph.

In one of the examples Harris provides, ABC Manufacturing is the business and Red Widgets is the enterprise. Say we want to look at an enterprise quantity of 100,000 packs of Red Widgets. With the widgets as an income source in packs of twelve priced at \$1.50 per

widget, we could look at the breakeven graph and ask for the breakeven calculation in one of four ways: number of packs of red widgets, income per pack (price per widget times number in pack), price per widget, or number of widgets in each pack. We can immediately see what effect changing the price per widget, or the number of widgets in each pack, or any other variable, would have on profitability. Fixed expenses remain constant, while variable expenses are proportional to the quantity of widgets sold.

All graphs are printed as window dumps to the Imagewriter. The worksheets may be printed in the standard choice of qualities, but not very quickly. A single page took 7 minutes 48 seconds to print in high quality, and 2 minutes 58 seconds in standard quality. Fortunately, draft quality is readable, and prints at the rated Imagewriter speed.

Profit Projections is to be commended for the simplicity of data entry, fast useful graphing, and restriction of options that makes it easy for beginners to use. However, those same restrictions are one of Profit Projections' faults, in that they make the program useful only to those who don't know how to do this kind of financial analysis with spreadsheet software. Of course, graphing results like Profit Projections can is not easy when using only a spreadsheet. A true defect is the speed of printing. No one will print in anything other than draft quality more than once.

Profit Projections/Breakeven Analysis is a useful piece of software for the small business person without experience in financial analysis who wants a simple and fast profit projection. It is by no means a sophisticated financial analyzer.

This Month's Mailbag

I've been aghast at the prices of Mac software. Sure, it takes a year to write a program, but how long does it take to write a good technical book? The markets for both are limited. Why shouldn't programs sell for similar prices? If they did, there wouldn't be the pirating of software I read about. I respect the education and work which goes into a useful program, but I also have the feeling I am being ripped off and resent it. With this lack of respect for the merchandiser, I can see where pirating becomes attractive. I have turned out a lot of work with just MacWrite and MacPaint in the past year. It may be a long time before I look into over-priced software for other purposes. There must be other users of similar thought.

Your MusicWorks review in *Signal* #20 was interesting. I borrowed the MusicWorks disk from an office friend for a couple of nights to see if it was something I should buy. While my training and strong inclinations are those of an engineer, I studied piano and xylophone/marimba for eleven years and had advanced courses in harmony and counterpoint.

I wanted to transcribe two original piano pieces which had been worked out in my head for several years. One has the baroque style of the pieces which you mentioned, and it went onto disk quickly and accurately. The second is a lyrical piece which is a bit inhibited by only four voices, but in one-voice form was good enough to be enjoyable.

I found myself immersed in great frustration while transcribing original music, as it does not come out of one's head one voice at a time. It comes out as chords. When I ran through the melody in Voice

B, fighting unwanted rests and ties, I did manage to get pretty much what I wanted into video form. However, in going back and adding accompaniment and Voice A embellishments, I was met with continual arguments from the software. Syncopation offset things so that the addition of a rest would shuttle all the remainder of that voice off to the east somewhere, and break every chord in the rest of the piece. Recovering from this continual and unwanted "help" finally become too great a chore.

It strikes me that the program was written by computer people, not musicians, as we must expect. I have absolutely no use for the wraparound music scheme, analogous to the snakelike continuity of word processing. All I want is a blank staff and clef and meter and the opportunity to plant notes one at a time. I can figure out the notation and timing. I don't need a Big Brother trying to keep me out of pitfalls and, in the process, pushing me into so many that the program destroys what I am trying to do. As a practical matter, I found the disk unusable. I enjoyed the try but was disappointed with the result.

Ned Raub, Waterford, CT

The similarity in the packaging and marketing of books and software attract a lot of comparisons, but we think there's really very few important similarities between books and their creation and software and its creation. One of the most glaring differences is that a book is really just a frozen display of data, while software is a tool for creating and manipulating data. Now which sounds harder to invent?

We doubt that price is ever going to help handle piracy. One reason is that copying software is quick, cheap and (most important) creates a perfect, functional copy. That's just too tempting for any dishonest consumer to pass up. After they invent an inexpensive Xerox machine for the home that can accept a book and spit out a perfect copy a few seconds later, including the book's all-important, functional binding, then you'll also see rampant book piracy. In the meantime, only software piracy enjoys such convenience, and only honesty seems to be an effective deterrent.

Your frustration with MusicWorks reminds us of the original crude text editors, which have evolved into fairly sophisticated and easy to use tools. We expect to see popular music editors do the same over the next few years. -Editors

From A Future Publisher

Have you tried MacPublisher? I've fiddled with it several times and it seems to work well. (So many programs, so little time.) I'm planning to do a newsletter for my growing base of customers. MacPublisher and the new LaserWriter, if anyone can afford it, should be a knockout combination. Scott Peters, Wheaton, MD

We're considering offering a LaserWriter output service for users who can't afford their own printer. How about it, readers, would you like us to print your files with LaserWriter quality?

One of our reviewers has taken an interest in MacPublisher and is working on a story. We've heard MacPublisher's publisher had the great idea of sending demo copies to lots of user groups so their newsletters could try the product out, show off the results, and generate a little free publicity. -Editors

Backups Are A Big Bother

On the subject of backing up as discussed in Signal #17: I don't! I

used to, but my Lisa contact at the dealership made a suggestion when I complained about how time-consuming the process was, and I've followed his method ever since. I keep everything in a folder and simply copy the contents to alternate backup disks every once in awhile and save the time I would have wasted copying and re-copying the operating system and tools. I discovered the hard way that it is faster to re-install the whole Office System and copy the documents I want than it is to restore from a complete backup, or worse still, from incremental backups. Why go through the tedious and time-consuming process of repeatedly backing up system software that you already have masters for?

John Bremner, Mississauga, Canada

You should at least have duplicates of Lisa's master diskettes, since if anything happens to the originals, you're stuck. Note that before 7/7, we couldn't backup a folder larger than one diskette. And it's also difficult for users with a lot of documents being changed every day to keep track of what needs to be backed up and what doesn't. -Editors

Where Have You Been All This Time?

I just received my first complimentary issue of Signal, but I've had my Mac over a year!

Donna Henseler, Yankton, SD

Gee, we've been publishing almost two years, and this is the first subscription request we've ever received from you! (Seriously, we'll send sample issues to any Mac users we find, but first we have to find them.) -Editors

You Lose The Desktop, But...

I own a Lisa 2/10 running the Xenix operating system. I operate a local information utility, and have found that Xenix is the perfect operating system (well, almost) for such a use.

Signal #19 mentioned rumors of a four-port serial card for the Lisa. It's not a rumor. I have one from Tecmar. With the two existing ports and the four-port card, you can have up to six extra terminals on a Lisa using Xenix. I highly recommend Xenix to anyone needing a multiuser environment. Several good programs are available, such as a complete accounting package by Open Systems, Multiplan, Lyrix (a word processor), Informix (a relational database), and ANSI COBOL.

Daris A. Nevil, Abilene, TX

Phone Book Publisher Identified

We are disappointed that you included our Phone Book in the Signal #21 article about "shareware", since our desk accessory is a for sale product available for \$49 from Macadam Publishing, 4700 SW Macadam Ave., Portland, OR 97201, 800-547-4000.

John Breuer, Portland, OR

We also got a call from a Rhode Island reader who identified your product, says he likes your Calendar too, and uses the Phone Book with a HabaDialer. If your Signal #16 ad had illustrated the Phone Book instead of the Calendar, we probably would have made the connection, but the Scientific Enterprises copyright we saw on the actual display threw us off the track. Sorry. -Editors

Long Live Lisa

I still think the main problem was that the Lisa was too far ahead of its time. Sure, you can run Mac software under MacWorks, but that's

a real pain and negates the advantages of the Lisa. If I want hassles, I'll go back to the good old Apple II.

I ordered and received the Videx Desktop Calendar. I am impressed. It may be a bit pricey, but it works well and is well worth the tariff. May other programs follow.

How about a survey of your Lisa readers asking what they would really buy if available? If some of the writers see some numbers, they may just write some programs. For me, a good stock market program would be worth its weight in gold, which would undoubtedly be the price!

Willis L. Bennett, Fair Oaks, CA

Speaking of numbers, our guess is that a typical software product would currently have at least 20 times more potential customers if it's sold for the Mac instead of the Lisa. Considering that and Lisa's recent death as an Apple product, which market would you shoot for if you were a software developer? -Editors

Deleting The Desktop

To delete the invisible Desktop file mentioned in Signal #21, just hold down the option and command keys while booting up. That destroys folders, icon positions, window sizes and positions, and Get Info comments.

Mike Johnson, Trenton, OH

Darn. We knew that and just forgot. Despite Tom Pittman's vote in that issue, MacTools is now back in the "little use for" category. -Editors

So Many Programs, So Little Space

I notice that the number of items listed in the Received, But Not Yet Reviewed column far exceeds the number of reviews in each issue. With the proliferation of software (thank goodness) and other miscellaneous accessories for the Macintosh, I would like to express the need for a limited, independent abstract of these items in addition to your usual in-depth reviews.

The abstracts could include 1) a brief description or objective of the item, 2) the degree of success meeting the objective, 3) a review of the documentation, 4) bugs found, and possibly 5) the writer's subjective opinion.

Maybe some of your readers, myself included, could be voluntary reviewers.

J. Daid Theis Jr.,
Huntington Beach, CA

Unfortunately, you'll always see in-depth coverage of only a small percentage of the total products announced. Magazines are slaves to an interesting phenomenon: for each additional product written up, five more arrive!

We can understand your desire for a little more information about every product, but isn't the value of a review or abstract somewhat a function of its length? By the way, all of our by-lined articles are freelance efforts by Signal readers. -Editors

Macintosh Pascal Limitations

I couldn't agree more with your comments about Macintosh Pascal in Signal #18. It is truly a unique way to learn Pascal.

There is a limitation as to how much output can be displayed in the text window. For a full size window, the limit is reached at about halfway down the window. The window then starts scrolling, even though the bottom half is still empty. The following trivial program illustrates the problem:

```
program test;
var textrect: rect; index: integer;
begin
  SetRect(textrect, 3, 40, 507, 350);
  SetTextRect(textrect); ShowText;
  for index := 1 to 200 do
    writeln('Pack my box with five dozen
    liquor jugs');
  end.
```

The best technique is to use the text window only for data input and minimal output. Use the drawing window to output large volumes of text using WriteDraw. The drawing window is also about ten times faster in execution than the text window, and you can use a variety of fonts as well.

My biggest complaint with Mac Pascal is the Reference Manual's index. Many of the standard procedures such as ShowText, ShowDrawing and GetMouse have no entry.

It would also have been nice to have a cursor mover like the Gotoxy procedure in Apple II Pascal, otherwise text window I/O is very cumbersome. I'd be interested in hearing from anyone who knows how to do it in Mac Pascal.

Another problem is the copy protection. When I try to copy a data disk containing only Pascal programs by moving its icon onto the icon of a backup disk, I get an error message. If I use a startup disk other than Pascal, it will let me make the backup copy, but that means I have to restart the system with a non-Pascal disk just to make backups.

James M. Katz, Malden, MA

Regardless of to what size you set the text window, Macintosh Pascal is using available memory to hold the actual output. On a 128K Macintosh, your program only outputs about ten lines before available memory is exhausted and the text window has to scroll in order to delete lines off the top so that new lines can be output at the bottom. It's interesting to see that on a Macintosh XL, the vertical scroll bar turns on as soon as the window fills, but there's still plenty of memory to save what scrolls off the top. Once the program stops, the scroll bar can be used to see that about the last 100 lines have been retained by the XL and can be scrolled up and down within the window. -Editors

What's The Catch?

I would like to subscribe to your free publication. What's the catch? How can you publish for free?

Shane Roberts, Los Angeles, CA

Just like free television, Signal is brought to you courtesy of our advertisers. If you're in touch with one of those vendors, please remember to thank them for bringing you Signal. And if you're in touch with an advertiser who isn't in Signal, then please tell them they should be. -Editors

Received, But Not Yet Reviewed

Omnis 2, an information management program for the Macintosh. \$275, Organizational Software Corp., 2655 Campus Dr. #150, San Mateo, CA 94403, (415) 571-0222.

MacTutor, a journal for Macintosh programmers. \$24/year, MacTutor, Box 846, Placentia, CA 92670, (714) 993-9939.

MacPeriodicals, a regularly updated index to Macintosh-related articles that appear in thirteen publications. \$3 on paper, \$11 on disk, \$6 to copy to submitted disks. Philip C. Russell, 430 SW Crest Cir., Waldport, OR 97394, (503) 563-2501.

ChequeBook, checking account management software for the Macintosh. \$54.95, Intermatrix, 5543 N. Satsuma Ave., North Hollywood, CA 91601, (818) 509-0474.

Easy Trace, a clear plastic tracing grid and ruler, MacPaint grid files, paper sketch pad, and desk accessory pixel ruler. \$39.95, Heizer Software, 5120 Coral Ct., Concord, CA 94521, (415) 827-9013.

MailManager, list, label and form letter generator for the Macintosh. \$119, SofTech Microsystems Inc., 16875 W. Bernardo Dr., San Diego, CA 92127, (619) 451-1230.

BEAMAC, Macintosh beam analysis software for engineers. \$95 (\$10 for demo disk with manual), Erez Anzel, 5700 Arlington Ave. #7L, Riverdale, NY 10471, (212) 884-5798.

UltraFonts Edition Two, 21 Macintosh fonts in a total of 55 sizes. \$29.95, 21st Century Software, 2306 Cotner Ave., Los Angeles, CA 90064, (213) 829-4436.

Mac-Mania premier issue, "the information exchange for Macintosh enthusiasts". \$20/six issues/year, Smart Mart Press, 4589 70th St., La Mesa, CA 92041.

Signal #21 February 1985

Should You Move Up To ThinkTank 512?

by Ran Talbott

If you have bought or are going to buy the ThinkTank outline processor, you may be wondering if you should pop the extra hundred bucks for the enhanced version called ThinkTank 512 (for the 512K Macintosh, from Living Videotext Inc., 2432 Charleston Road, Mountain View, CA 94043, 415-964-6300).

Topping the list of new ThinkTank 512 features is the ability to add text and graphics to an outline. ThinkTank does this using windows, just like the larger window that contains the outline itself. Double-clicking on the + or - at the beginning of an outline entry opens up a window, or closes one if it's open. The cursor changes from an arrow to a circle to show when double-clicking to open or close a window is enabled.

You can add a window at any level in the outline. You're allowed to have both windowed text and subheadings underneath a heading line. ThinkTank identifies outline headings that have associated windows by drawing a circle around the leading + or -.

After opening a text window, you enter an environment that's a mixture of MacWrite and ThinkTank. The window has the same "hot" frame scrolling as the main ThinkTank window, but the rest of the editor is closer to the familiar Macintosh standards. There are no fancy frills here. Everything is in the same monospaced font as the outline, and you can't set the margins or justify text. While those features would be nice, ThinkTank is, after all, an "idea processor". You can always format your text with your favorite word processor.

I found a few minor bugs in the editor. If you select a block of text that includes the last character in the window, and delete it, the last

character won't go away. An extra cursor appears when you press Return, but in a location that you immediately overwrite if you continue typing on the new line. And occasionally, after cutting text, the remaining text that shifts over to fill the cut disappears from the screen, leaving a block of white space. The text is still in the document, but invisible. While the editor never actually lost any of my text, it didn't make me feel 100% confident that my data was safe.

Picture windows are opened, closed, and identified in the outline in the same fashion as text windows. ThinkTank is limited in what it can do with pictures. It can cut or paste pictures to and from the scrapbook and clipboard, and display them on the screen or printer, but it has no features for editing them.

One disappointment is that windows may not contain both text and graphics. Being able to mix editable text and pictures would be very handy. To associate text with a picture in ThinkTank 512, you need to define two outline subheadings, one for the picture and one for the text.

Since ThinkTank isn't a word or picture processor, it needs the ability to move text and pictures to other programs where they can be edited. ThinkTank uses the clipboard as you'd expect, but also offers an interesting and novel technique for getting information to and from the scrapbook using three new items in the Edit menu: Cut to Scrapbook, Copy to Scrapbook, and Paste From Scrapbook. These functions work only on windows, not outline headings. The Cut and Copy functions are convenient if you're using ThinkTank to produce an outline interspersed with text and illustrations in windows. When it's time to ship everything to a word processor, one simple command strips the outline from the text and illustrations, and deposits them in the scrapbook.

Things are a bit tougher on the receiving end of such an operation. Each window becomes a separate page in the scrapbook, which can make the process of assembling text a bit tedious. "One window, one page" is a rule that's easy to explain and understand, but I would prefer a way to combine text windows for nearly all the things I would use ThinkTank for.

You can keep outline headings and text together by copying them to the clipboard, as I did in creating this article. You'll need to do a bit of cleanup, to get rid of the leading +s and -s, but it can be more convenient than pasting from the scrapbook. The technique doesn't work for pictures, though. Pictures won't come through when you paste text.

One change that will annoy some ThinkTank 128 users is that outlines copied to the clipboard and pasted into a word processor aren't indented the way they are with ThinkTank 128. Everything is flush with the left margin. That appears to be a compromise to save users the effort of un-indenting text windows and headings in the word processor, but many users will want things both ways. I'd like to see an item in the new Preferences menu to control indentation during copying.

Paste From Scrapbook is a menu item with a slightly misleading name. Paste The Scrapbook describes it better, since the entire scrapbook is brought into the outline, each page becoming a subheading and window under a newly-created heading. You can then cut and paste to get the desired windows where you want them. This can save a lot of time and mousing around if you are bringing several pictures or blocks of text into your

outline.

The new Slide Show function, like the scrapbook operations, works only with text and picture windows. You can select a heading, then choose the Slide Show menu item, and ThinkTank will successively display all the windows underneath that heading. You are given the choice of moving to the next picture after either a mouse-click or a set amount of time, entered in 60ths of a second. You also have the option of displaying the outline heading above the window as a caption.

Slide Show could be handy for reviewing text, for demonstrations at stores and conventions, or even actual slide shows (if you're willing to pay for a projection system). You'll have to keep your text windows down to fifteen lines or less to fit the screen, since Slide Show simply ignores the rest. When you're using the mouse to control the advance to the next frame, there's a box with a "Click to Continue" message at the bottom of the screen that will annoy some users and please others.

ThinkTank's printing function has been greatly expanded for the 512K version. Listings can be produced in a variety of styles, with options to include section numbers, to strip or retain the leading +s and -s in the outline, and to control the amount of indenting (or eliminate it entirely) for lower levels of the outline. Outline headings can be printed in bold, with an option to do so for only the top level of the outline, the top two levels, top three levels, and so on. You can also specify that, below a chosen level, headlines are not printed at all.

ThinkTank 512 allows a certain amount of control over the format of a printed page. You can specify the left and right margins of the page, but not the top and bottom. Text is automatically reformatted to fit within the margins. Headers, footers, or both can be added to each page in a fixed format, consisting of the day and date at the left edge, the page number at the right edge, and the text of the headline you selected for printing in the center.

Another option produces a table of contents. Like boldfacing, you select the depth to which headlines are indexed. If you select zero, no table of contents is produced.

Like the editor, printing is limited to a single font in a single size. You can choose either 9 or 12 point text, but the entire document must be the same size, with no justification or proportional spacing. But the boldfacing, section numbering, and indexing allow ThinkTank to go far beyond simply producing working copies of outlines. Many users will find that they prefer to produce proposals, specifications, and manuals directly in ThinkTank 512, without using a word processor at all.

The insertion point can now be moved around using the arrow keys on the numeric keypad, or by using the command key with one of the number keys on the keypad or main keyboard. As a long-time user of other computers, I applaud the notion of being able to keep my hands on the keyboard, but I found the new command key definitions a bit awkward. They just don't have the convenience of WordStar's s-e-d-x diamond (for left, up, right, down). Another new feature is that when the cursor is over a window's borders, it becomes an arrow that points in the direction that text will scroll when you click.

ThinkTank 512 continues to use the same type of copy protection scheme as the 128K version. The master disk has a deliberate error that is checked when you run the program, so you can't copy it by

conventional means. The new ThinkTank, like the old one, allows you to run using a hard disk or external floppy, and requires inserting the master disk only during startup. ThinkTank 512 is a bit more tolerant about having the master disk inserted. If it's not present when you start the program, you're shown a message and given a chance to insert it. ThinkTank 128 simply returned to the Finder if the master disk wasn't ready when it went looking for it.

Any ThinkTank 128 document can be read and edited by ThinkTank 512, and ThinkTank 512 documents that contain only outlines can be read and changed by ThinkTank 128. Even documents produced by ThinkTank 512 that contain text and pictures can be read with ThinkTank 128, with the text changing into subheadings, line by line. ThinkTank 512 pictures also appear in ThinkTank 128, but as gibberish text rather than pictures. If you use ThinkTank 128 to edit and then save a ThinkTank 512 document containing text or pictures, the changes will ruin the pictures and permanently reformat the text into subheadings.

In addition to the text editor bugs already mentioned, I encountered two others. When I tried to paste to the scrapbook desk accessory, I found that the command-V key didn't work, even though the menu selection did. I also discovered that ThinkTank incorrectly reports that there is no space left on a hard disk if it hasn't opened a file on it. The space is reported correctly for floppies.

I called Living Videotext shortly before going to press, and asked them about the bugs and their plans for correcting them. They were quite frank about acknowledging the bugs, and said that they were working on an update to fix them. I was told that they expect to have the update ready in "about thirty days" and will provide it at no charge to all registered owners. They seemed genuinely interested in making sure they knew about all the bugs I found, and in discussing my reactions and suggestions concerning ThinkTank. Of course, I had identified myself as a product reviewer.

Should you spend the extra \$100 for ThinkTank 512? The answer is, unequivocally, "it depends". If you're a satisfied user of ThinkTank 128, you may not be interested in the new features that the 512K version has to offer. If all you plan to do with ThinkTank is brainstorm or organize your thoughts on a general level, you should start with the smaller version. As long as your ideas can be expressed in short sentences, you can easily keep them in an outline. You can also easily upgrade later if you decide to do fancier things.

On the other hand, there are many uses for which the 512K version is clearly the better, or even the only, choice. As a writing tool, the fat version enables you to build your text right into the outline and, in some cases, produce the finished document. For another example, imagine planning or managing projects. The ability to add detailed notes about possible snags, to note important but obscure factors in decisions, or to include excuses for being late, can all be a real lifesaver. And, of course, there are the pictures. When you're in the conceptual stages of a project, a picture is often worth far more than a thousand words.

If you've been debating about fattening your Mac, but couldn't quite decide to do it, ThinkTank 512 may be just the excuse you've been waiting for.

Received, But Not Yet Reviewed

Lisa/Macintosh Developer's List, a continuously updated directory of products organized by vertical market and by vendor, available printed and on disk. Century Next Computers Inc., 2120 Missouri Blvd., Jefferson City, MO 65101.

Dollars and Sense, Macintosh money management software. \$149.95, Monogram, 8295 S. La Cienega Blvd., Inglewood, CA 90301, (213) 215-0529.

Game Disk One, featuring Backgammon, Mancala, and Deduce for the Macintosh. \$39.50, Triple Play, Box 6354, Lafayette, IN 47903, (317) 742-5369.

DB Master for the Macintosh, data base management software. \$195, Stoneware Inc., 50 Belvedere St., San Rafael, CA 94901, (415) 454-6500.

Images, MacPaint clip art. \$45, Matrix Advocates Co., Box 1238, Brick, NJ 08723, (201) 899-4739.

Desktop Calendar, a calendar, notepad, appointment book, and tickler file for the Lisa. Videx Inc., 1105 NE Circle Blvd., Corvallis, OR 97330, (503) 758-0521.

MacNews Update #1 and #2, Macintosh product descriptions and reviews. \$15/six issues, Michael A. Amarello, 110 Baldwin St., Fall River, MA 02720.

MacPublisher, a Macintosh text and picture composition system for publications. \$99.95, Boston Software Publishers Inc., 19 Ledge Hill Rd., Boston, MA 02132, (617) 327-5775.

NewGammon, backgammon for the Macintosh. \$39.95, NewSoft, Box 4035, Newport Beach, CA 92661, (714) 646-0948.

McTrivia, a question and answer trivia game, \$40, and *McFlip*, a version of reversi, \$34, both for the Macintosh. McCarron-Dial Systems, Box 45628, Dallas, TX 75245, (214) 247-5945.

The MACazine, a monthly magazine for Macintosh users. \$24/year, Icon Concepts Corp., Box 1936, Athens, TX 75751, (214) 677-2793.

LabelList, a Lisa 7/7 tool for printing mailing labels from LisaList files. \$50, Consortium of Associated Schools and Educational Resources, University of Nebraska at Omaha, University Television Dept., 60th & Dodge St., Omaha, NE 68182-0310, (402) 554-2516.

Some New Desk Accessories Arrive

Not long after *Signal* #20 hit the mail, Morris Herman called from Santa Barbara to tell us a local user group had supplied him with a desk accessory called New Key Caps, which displays the characters in any font, just as we had asked for in our response to that issue's letter about untypeable characters. He sent us a disk containing the desk accessory, along with a few other accessories we hadn't heard of. (For now, please don't contact *Signal* to ask for copies of these programs. Most user groups will be glad to supply you with such software for a nominal charge.)

The disk that arrived also contained version 1.4 of CE Software's popular Desk Accessory Mover, which we first described in *Signal* #15. We were disappointed to find that the Mover still uses an intermediate "holding area" window, which seems so much more confusing than the Font Mover's simpler approach of working directly on files.

At first glance, New Key Caps seemed like exactly what we had

asked for. When opened, it adds a KeyCaps menu to the menu bar, which allows any installed font to be selected for display on a keyboard that looks just like Mac's standard Key Caps desk accessory. Unfortunately, we found that most fonts end up scaled too large for labeling the relatively small keyboard, causing the display to look garbled and confusing. Worse yet, the system kept crashing after just a few font changes.

Two other desk accessories that arrived are the Phone Book and the Hex Calculator. Both are much more reliable than New Key Caps. The Phone Book stores names and addresses that can be searched with a Find command, along with a number that can be automatically dialed by a Mac. A scroll bar allows jumping to the first entry that starts with a given letter. A copyright notice identifies the Phone Book as a product of Scientific Enterprises, but does not include an address. Like New Key Caps, the Hex Calculator had no by-line.

This Month's Mailbag

Where Is Signal Headed?

What direction is *Signal* taking in the coming months? Seems to me that it'll be more and more difficult to be "The publication for Lisa and Macintosh users and developers." The real mass of Mac users surely won't want the depth of info that developers need. A neophyte hacker or developer might ask "explain what resources are and how they're created and changed", while a user would want to know things like "what database program should I buy?"

L. Mawby, Suttons Bay, MI

Now that Apple has made it clear they won't be using the word "Lisa" much anymore, we've changed our cover and are not planning to instigate any further Lisa coverage, though we expect to continue to receive letters from Lisa users and maybe even a Lisa product or two, since over 25% of our subscribers claim to use a Lisa, either exclusively or in addition to a Macintosh.

To us, "developers" has always meant anyone (including dealers) with an interest in seeing Apple's 32-bit products develop into a success, not just programmers looking for technical information. -Editors

Encyclopedia Author Meets MacPaint Author

MacPaint author Bill Atkinson visited the Mac users group in Chapel Hill recently and I was able to ask him some questions, the answers to which cleared up some of the misunderstandings published in my *Encyclopedia Of Mac Faults* in *Signal* #18.

While I would rank MacPaint somewhere near CPM or Visicalc in terms of being a microcomputer landmark, Bill doesn't seem to feel that way. He regards his creation more as a toy or bauble, useful for what he calls "daily art". As such, he considers it finished. At the time of his Chapel Hill visit, he was much more interested in working on the Apple video digitizer than in adding bells and whistles to MacPaint. In considering improving a program, Bill asks whether or not the code is "free". That is, whether or not he can implement the changes by making further calls to existing modules. If he has to write additional algorithms, then the improvement has a penalty, one which he is not interested in paying on MacPaint.

In the *Encyclopedia*, I observed that the actual dot printed by MacPaint was wider than a dot in a

graphic printed by MacWrite, and thought it was two dots. Actually, according to Atkinson, a "dwell" command can be sent to the printer which lengthens the amount of time the printing pin impacts the paper, hence changing the aspect ratio of the printed image. He implied there was no other way to change the aspect ratio, which is too bad, because a lot of my Macintosh stuff goes to a copier, and the skinny dots from a MacWrite image come out looking better.

My article had also said it would be nice to be able to click the grabber on some connected collection of black pixels and drag them, without having to select them first with either the lasso or the rectangle. I did not think the software task would be too great. After all, the paint bucket already has that type of capability, since it will fill all of a connected white or black area with paint (with the exception of pixels on a diagonal), so it must "know" the bounds of that area. Bill maintained, however, that the task would be enormously complex, because the lasso tightens down on an object, rather than feeling around for all its branches, and he felt it would be far too slow. There are some topological wrinkles to this thing he understands and I don't.

Another feature I think would be a marvelous improvement to MacPaint would be automatic selection of drawn shapes, and I think the software would be "free" or nearly so. When you draw an object in not quite the right position, you need to erase or hit Undo and then redraw it. But imagine if drawing an object also then automatically selected the object (with what Bill calls "marching ants"). After letting up the mouse button when done drawing, you could either move the object to its correct location (by clicking on it and dragging), or deselect it as is and draw something else (by clicking elsewhere, which is what you usually do anyway).

Another improvement I would like to see is in the curve drawing routine. Try this: draw a circle in MacPaint, use FatBits to find every three pixels that form a right angle corner, and delete the corner pixel to leave just the two diagonal bits. See if you don't agree with me that circles look and print smoother with those corner bits removed. I do that manually on most of the circles I draw. It's a pain and I wish the computer did it for me.

I really appreciate the heartwarming responses to the *Encyclopedia* (a title chosen by *Signal*, not by me). Now, just to show I can be fair, I will criticize the frontrunner: Although the IBM PC weighs enough, it is simply too smooth to anchor a boat. Although it makes plenty of noise, the frequency is not right for driving off household pests. And although it has many chips, it still runs too cool to fry a good omelet.

Alex Funk, Durham, NC

Even if we had to trade away a number of existing features, we'd like to see a version of MacPaint with the display designed more closely to the "Mac standard", with movable, sizable windows, pattern and line selections in menus, and so on. We wonder by what order of magnitude the Mac would have to speed up to let the grabber operate acceptably fast in the manner you describe. One possible way to overcome the fixed aspect ratio is to write a program to directly read MacPaint files (the format is documented in Inside Macintosh) and print them with the effects you want. -Editors

Signal Gets A Thumbs Down

Please! A little less complaining and much more positive feedback would improve your magazine 200%! If you're reviewing a real dog, perhaps some complaining is warranted, but not everything you write about!

Steven Stanley, Minneapolis, MN

Since starting our "gladiator" system, nine products reviewed by *Signal* (not by a by-lined author) have received a Thumbs Up, and two have received a Thumbs Down, though all the products had problems of one type or another that we felt were important enough to warn our readers about. This Mailbag column also often includes a lot of complaining, but that's because people tend to write us only if there's something to complain about, as your letter demonstrates. -Editors

Explaining Those Icon Surprises

The icon on your desktop is not directly connected to the file you moved in, as implied in your Microsoft BASIC story in *Signal* #20. To get the correct icon, you have to delete the invisible Desktop file (using the MacTools program you thought there was so little use for in that same issue), so that the Finder will rebuild it from the icons in the applications' resources. You might be surprised to discover how much space is taken up in the Desktop file for old icons that are never used any more.

Tom Pittman, San Jose, CA

Microsoft sent us another copy of 2.0, this time with the disk shutter seal intact. Wouldn't you know it? We haven't been able to reproduce our original success in forcing the appearance of an old icon. Why one of our disk's Desktop files had the 1.0 icon is a mystery to us, since we never used 1.0 at all. One of the public domain disks we acquired must have been the carrier. We tried deleting a 9K Desktop file on one disk using MacTools, and noticed the Finder recreated it in only 3K. The problem with missing icon pixels we reported still remains. -Editors

Suggested: Suggested List Prices

To save some writing, include the suggested list price in your Received But Not Yet Reviewed column.

G. L. Berendes Jr.,
Pointe Claire, Canada

We'll do that, if it's supplied by the vendor or otherwise easily determined. (We never got into the habit because most products seem to arrive here without their vital statistics!) We've also added phone numbers, and made the same additions in the club listings. -Editors

Embrace? We Don't Even Shake Hands

I hope you find it as easy to embrace the Macintosh XL as you have the Lisa. I also hope that Apple will provide 7/7-like software for the Mac.

Steve Mullen, Sidney, MT

As some of our earlier issues have hinted, we've never really warmed up to Lisa under MacWorks, now known as the XL. The aspect ratio problem has always been distasteful, and we don't like the way the ports, especially sound, fail to match up to the Mac. Most important, we keep hearing from XL users who have been burned by bugs that only seem to appear in Mac products when using MacWorks. MacWorks has been slowly improving, but we can't help

continuing to think of the XL as a kluge.

As for 717 on a Mac, the forthcoming Jazz product seems to be Apple's great hope in that arena. With or without Jazz, we would probably have abandoned Lisa in our office ages ago, if Apple had supplied a Mac hard disk (but not on the AppleTalk net!) with a Finder to match. -Editors

Falling In Love With Mac

Via amateur radio, a busy home workbench, and a small lab in my own business, I updated my vacuum tube education to transistors and then IC logic, developed a line of industrial controls, and did well.

For several years, my question along with most of the country was "what do I need a computer for?" I have balanced checkbooks, written letters and reports, done engineering sketches, put out mailings, compiled directories, maintained files, and cranked through calculations for half a lifetime without a computer. I can turn on the lights and a coffee pot at 6:30 AM with a \$3.99 timer. Few games hold much attraction.

A six-night course in BASIC at the local high school illustrated how I might do a payroll, but my business (auto positioners, controls, packaging machines, consulting) was dying at that point. After the '81 recession killed a good little business of thirty-three years, I took refuge in a large corporation.

I am now a project engineer in the submarine missile launching business. My new employer offered a \$3600, two-year, interest-free computer loan. Interested but cautious, I drove to a computer fair to look at Kaypro II, a loaded Commodore 64, an IBM, and to stumble unexpectedly onto Macintosh.

The young man selling Kaypro knew his stuff, but with my myopic eyesight the display was too close for glasses and blurry beyond bare eyes. Did this mean I could never coexist with a computer? The Commodores were being devoured by the small fry playing games. Some new color graphics machines from Boston were wowzers. IBM was there, stark and gray as I had known them in business, impressive but never welcome in my home with their always slightly condescending manner. Over in the corner was a small knot of people crowded around a man and a computer. When I could finally get a look, I found it was the new Macintosh. That was mid-April 1984.

The mouse glided over the desktop, and the mystical icons exploded into documents and graphics and tools. I watched through the demonstration, asked price and delivery, and literally ran out of the hall.

After the five miles home, I burst into the house, went to the sewing room and said, "Put down what you're doing. Come with me. I have glimpsed the future!" Shirley hesitated, but realized this was no normal request. When she saw Mac and began to realize what was happening, she said, "You need that machine. What are you waiting for?" Me? With a computer? I am not going to compute. I am not going to write programs. I am not going to control the household lights with it. But it could do word processing, and the graphics were intriguing. With my company's offer of no-interest financing, my defenses were fading.

Over this past summer, Mac produced a fifty-three page tech manual for me to accompany a digital instrument I did for the Navy. The text is beautiful. The tabulations, charts, logic diagrams, and panel views are great. The typing pool no longer puts higher priority work in front of mine nor

mangles tech terms. The draftsmen don't hold up the job for weeks and weeks. My work was delivered ahead of time, and my Navy manager was so pleased that he handed over \$300,000 worth of contracts to continue research. Much credit for that is due Mac.

This week's work was drafting a refurbished laboratory with enough architectural detail for both corporate planning and purchasing. Some weeks have gone into a large circuit board. Run through the copier, the graphics are then dense enough for photography and to make a preliminary board to test elaborate circuitry. This breaks the problem of someone else putting mistakes into "my" artwork.

Samples of my work have gone up the corporate ladder. The group is buying eight Fat Macs for in-office use, even though the division seems to be hung up on the DEC Rainbow, though that preference seems to have stalled. I hope I know where the doubt originates.

Last week the 512K expansion was installed, and the machine is greater than ever. Mac has done great things for my career with this company, and I consider him my second best friend, after a big black Labrador. When there is a disk which teaches Mac to shag a Frisbee, even that may change.

Ned Raub, Waterford, CT

7,012 Down, A Few Hundred Thousand To Go

I'm puzzled why your *Signal* #20 circulation was only 7,012, given all the Macs that Apple has sold.

James A. Tolbert, Albany, OR

We haven't yet convinced Apple to include a free subscription coupon for *Signal* with each Mac shipped. -Editors

Signal #20 January 1985

A Contribution To Bach's Tricentennial

by Brian Jay Wu

MusicWorks is a program from Hayden Software (600 Suffolk St., Lowell, MA 01854) that allows you to input music to a Macintosh using musical notation, and to then play back the song. No additional hardware or software are needed.

It's important to remember that the Macintosh hardware is limited to producing sound for a maximum of four voices at once. A "voice" corresponds to one continuous melody of single notes. Thus, in order to play a C major chord (C, E, and G), one would have to use three of the four voices, one voice for each note. It's clear the Macintosh won't handle most of the Chopin works or a symphony by Beethoven, since those pieces often use several dozen voices at once. However, most beginning and intermediate keyboard pieces can be done in four voices.

MusicWorks scores are input one voice at a time. The choice of notes runs from 16th notes to whole notes, so 32nds and ornamentals are out. Following a 16th by another 16th in the same pitch is useless since the machine (hardware or software, I don't know) cannot distinctly stop and then start notes cleanly enough (although placing a rest between the two can help). Forget about double sharps and double flats, or devices like triplets (as exemplified by the song *Laura*, that Johnny Mercer favorite). The program can't hack it either audibly or notationally.

MusicWorks does not support text in a score, either comments or lyrics, which means you cannot generate a "real" score with notations like *Adagio* or *alle Breve*.

Also forget about repeat bars and codas and first/second endings. That leaves about the most primitive level of notation possible, but a large variety of music can still be transcribed!

The above restrictions make it clear that Baroque keyboard pieces are ideal for this program, since they typically use few voices and aren't too long. That's important because the length of a MusicWorks song is limited to 64 measures of 4/4 time. Apparently the entire piece is kept in memory.

As a test of MusicWorks, I attempted to enter the fifteen Bach Two-Part Inventions. That adventure illustrated several strengths and weaknesses of the program.

The Bach Inventions are relatively easy to enter, taking on the order of thirty minutes each to input using MusicWorks' staff editor. The program allows you to graphically enter and move notes on a music staff, just as you would expect, and assists you by showing the name of the note as you enter it. For example, "6th octave, C". Editing is easy because copy, cut, and paste are supported. The program also offers an alternative to standard notation (a strange and unique "grid" mechanism), but it seems more interesting than useful. I suspect most users will simply use musical notation for entering a song.

MusicWorks is clever enough to automatically determine rests and other matters of timing. Moving notes up and down by a half step as well as an octave works well. There are even some neat little devices to flip notes horizontally and vertically. Well done! Obviously, thought went into the editing section.

Not so well done are the limitations on the different meters. For example, Invention 3 is in 3/8 time, but MusicWorks doesn't support 3/8 time! The closest thing it supports is 3/4 time, so I had to enter Invention 3 in 3/4 time, with the stipulation that every note was "doubled": a 16th note in the original score was transcribed as an 8th note, for instance. As another example of MusicWorks' meter problem, Invention 12 is written in 12/8 time. I had to transcribe it in 6/8 time, which meant that for every measure in the original 12/8 score, I had to generate two measures in 6/8 time. To transcribe Invention 10, which is in 9/8 time, I had to use 6/8 time, and for every two measures in the real score, three were generated in the MusicWorks score. And I thought the computer was supposed to do the hard work!

Subtle but important features of music notation (such as default accidentals within the same measure, or the changing of staff notes) are not supported. If a C sharp is recorded in once voice, then technically any C in the same measure in another voice should default to C sharp also. The program will check for consistency across one voice, but will not cross-check against the other voices. That makes it difficult to ensure that your score is faithful to the original, particularly if you had to do a translation from the real meter to one that happens to be supported.

Really frustrating are MusicWorks' "features". For example, the program insists on forcing the technically correct note, even at the expense of notational and stylistic aesthetics. For instance, consider a trill in the key of D (where F is automatically sharp) consisting of a long repetition of the notes E sharp

(actually F natural) and F (which is sharpened). If you input the trill, MusicWorks cleverly recognizes that E sharp is actually F natural, and so enters it as that. Then, when you enter the F, it recognizes that you are in the key of D and places a sharp sign on the F (because the previous F was natural). Then, when you enter the second E sharp, MusicWorks again forces an F natural! Do that several times and the result is a horrible mess with sharps and naturals floating everywhere. If the program had let me enter what the composer wrote, namely E sharp, and didn't insist on being technically correct, the score could have been kept as clean and neat as the original.

As another example of this tendency towards correctness, the program will take two notes of the same pitch tied together (indicating notationally separate notes, but audibly a single note) and generate the corrected "real" note. Tying two quarter notes together will generate a picture of a half-note, again carrying the score further away from the original.

If the key signature is sharps (such as the key of G or A), MusicWorks will not allow you to enter any flats (it figures out what the equivalent is in sharps). The reverse is true if the signature has flats. Again, one is unable to enter scores as the composer wrote them. This means the score physically looks different from the original, which can make debugging compositions really difficult.

I can understand the technical reasons why MusicWorks forces the conversions, since otherwise it would require a representation of the score that included the "real" note as well as the "represented" note, and that would complicate the internal format of the music. Still, it is disturbing not to be able to input music and remain graphically faithful to the original. It also seems anomalous to coerce J. S. Bach to fit MusicWorks.

When the program first loads, strange and bizarre sounds can occur. That happens about every other time I run MusicWorks. Don't worry, it's just random values in the sound buffers. Simply hit the dialog buttons PLAY and then STOP, and the noise stops. Another minor problem is that, although MusicWorks can create notes across eight octaves, the unaided sound output of the Macintosh cannot reproduce the lowest notes. (You can hear them through headphones just fine, however.) The eighth octave is not reproduced correctly. The notes simply fail to match the correct pitch. If you do run the Mac sound output through headphones, you had better set the volume to the lowest possible setting or risk loss of hearing. If you are running the output through large amplifiers, be certain you begin with low gain settings or you risk destroying your speakers, as well as losing your apartment lease.

MusicWorks can print a score, but the output is poor. For some reason, it insists on printing blank measures trailing on the right side of the score. A minor problem, but irritating. Worse is that the program prints the score in very large graphic characters. As a result, the printout contains only two measures per line on the average, and only four lines (or staves) per page. To print a MusicWorks score takes roughly five to six times as many pages as the original. That certainly encourages "paperless composing", but sometimes it's nice to refer to printouts.

Since there are work-arounds, annoying though they may be, MusicWorks' limitations are not fatal, if all you want is your Mac to

play your favorite piece. If you are even only slightly interested in music and the Mac, then the \$79.95 suggested retail price tag is quite attractive, and you really cannot go wrong buying the program. But if you are serious about music or interested in actually transcribing scores, there is no way the product will satisfy you. Do not expect MusicWorks to do everything it should.

I compliment Hayden on the excellent documentation, which includes an introduction to the technical aspects of music. There are some neat little touches, like the "trails" desk accessory (a small doodling program that makes cute pictures). MusicWorks supports some interesting synthesizing tools for changing sound envelopes, so it's an excellent introduction to electronic music. However, I am unable to clearly distinguish between the "flute", "trumpet", and "organ" options. There is some good stuff here for those of you who are interested in learning the rudiments of electronic music. Indeed, this is an excellent program for learning about music in general.

I have to wonder, though, at what expense to fundamentals did the MusicWorks authors add trinkets? I'd rather have support for all time meters plus a way to stop the program from being so doggedly correct, rather than be able to play with a synthesizer. But then, I'm not a composer, I just like hearing some good tunes.

Editors' Notes: Seems to us that MusicWorks included the grid input option as a kind of "keyboard", so users who aren't adept at working with musical notation can still enjoy the program. Brian has kindly placed his arrangements of the fifteen inventions in the public domain, and has sent us a copy of his files, but please don't send money or blank disks asking us for a copy until we finish our project to figure out a good way to distribute all of the free software our readers have been sending in.

Quickly Unloading Lisa Folders

Imagine you have a Lisa folder you want to move (not copy) to a diskette. Which is faster: dragging the folder off the hard disk onto the floppy, or duplicating the folder, moving the duplicate to the floppy, and then trashing the original?

We made some tests using 2.0, and found we could drag a folder containing 12 blocks of data completely off a Profile and onto an empty floppy in about 17 seconds.

If we instead just duplicated the same folder and dragged the new copy to a blank diskette, the move took only 15 seconds, but another 6 seconds were necessary to move the original into the wastebasket, and another 5 seconds were needed to flush the trash, so the total time of 26 seconds seemed to indicate a direct move was quicker by far (and with a lot fewer steps).

But to our surprise, we tried the same comparison with a much larger folder and found that the simple method was no longer the quickest. For example, dragging a folder of 582 blocks off a Profile and onto an empty diskette took 16 minutes and 45 seconds. But if we instead duplicated the folder and moved the copy, we were done in just 7 minutes. Another 11 seconds were necessary for moving the original into the wastebasket, and we could then flush the trash in only 2 minutes and 10 seconds. The total time came to 9 minutes and 22 seconds, 44% faster than the direct move method for the same folder!

Subscriber Interests And Activities

Mike DeWalt, Bothell, WA: I work as a software engineering consultant for Boeing. In addition to using the Macintosh to learn languages like Modula, I use ThinkTank for doing documentation, such as fault trees, for certifying software for the FAA.

Harold W. Akers, North Huntingdon, PA: I have used Lisa 7/7 software in my sales business to create invoice forms, templates, customer quotations, general ledger files, checkbook documents, and check template forms. With a little creative thinking, I have been able to convert all my business activities and bookkeeping procedures onto the Lisa. This has cut my paperwork time in half, freeing me to create new ways of using Lisa in my business. I have gained so much extra time that I was able to accept a part-time computer programming teaching job in a local junior high school.

Ronald I. Rothenberg, Flushing, NY: I am using MacWrite and MacPaint as aids in writing my fourth book.

L. Mawby, Suttons Bay, MI: I've been using MacWrite and MacPaint for our winery's letter writing, putting out our newsletter (the mailing list is still maintained on our Apple II), MacPainting neat and readable signs for around the public areas of the winery (hours, no smoking, etc.), and using Multiplan for financial forecasting and cost accounting. I got excited about the potential of FileVision for mapping orchard/vineyard blocks and set up a simple inventory map of the winery: click on a barrel icon and get info on present and past contents of the barrel, highlight all barrels that have 1984 Chardonnay in them and that also held 1980 Vignoles, and so on.

Douglas A. Coleman, Portland, OR: Our company is an Apple value-added reseller and dealer. Plans are to use a Mac as the primary console on the lumber mill process control systems we build.

David E. Johnston, Baton Rouge, LA: I am a dentist, and I use LisaList to keep track of which patients are due for their regular checkups, LisaWrite for my local dental association newsletter and to keep up my correspondence with labs, patients, and fellow dentists, and LisaCalc in place of accounting software. I have seen accounting software on other machines, but I prefer doing my books with a spreadsheet. That way, if I have a sudden flash of insight and want to change or add something, it's easy. With the accounting software I have seen, if you don't like the way they do something, that's just too darn bad.

Copy II Mac Earns A Thumbs Up

The various copy protection schemes on our Macintosh disks have been driving us crazy, so our eyes really lit up when a package containing Copy II Mac recently arrived from Central Point Software Inc., 9700 SW Capitol Highway #100, Portland, OR 97219.

Copy II Mac is a program that lets you duplicate all or portions of copy protected Macintosh disks. (Of course, you're only supposed to make backup copies of your own software for your own use, not to sell or give away.) Two copy options are provided: a format-while-writing bit copy that can't run under MacWorks, but which seems to successfully bypass the

protection scheme of any Macintosh software product, and a faster sector copy version that can copy some protected disks, but which is intended mainly for copying standard, formatted Mac disks. The documentation claims the sector copy option is MacWorks compatible. Copy II Mac itself is not copy protected.

The program is simple and straightforward to use, and can copy any range of tracks in either the bit or sector mode. It also supports extra memory and external drives to help reduce disk swaps. However, using a minimum Macintosh might be a good idea, since the configuration sometimes seems to affect the copy process. For example, one of our readers has reported that Macintosh Pascal can only be duplicated by Copy II Mac when using just the internal drive. On the other hand, the same reader also reported that Mouse Stampede wouldn't copy at all, but it duplicated just fine for us when we used the bit mode. (The sector copy never complained while doing Mouse Stampede, but the results wouldn't boot. It was interesting to find that the good copy made with the bit mode was also protected, and could itself be copied only by again using Copy II Mac.) The documentation for Copy II Mac mentions that reversing direction, such as going from the external drive to the internal, sometimes helps overcome copy errors. When we used a 128K Mac with only an internal drive, the sector copy would buffer eight tracks per disk swap. A bit copy buffers only four tracks per swap, for a total of twenty swaps for all eighty tracks.

A listing included with our Copy II Mac, dated November 20, 1984, shows over fifty Mac packages, from 1stBase to Zork, that the product can successfully copy. We're interested in hearing from any users who have found software that Copy II Mac can't copy.

An extra program called MacTools is supplied on the same disk that contains Copy II Mac. MacTools is a disk and file utility that provides a number of handy functions, but most of them (such as copy files, copy disk, rename files, rename disk, format disk, and delete files) are already supplied by the Finder and standard Mac software. Some unique functions in MacTools include the ability to verify disks as error free, options to set the visible/invisible and protect/unprotect bits for files, and a ViewEdit menu option for inspecting and patching any file or disk block. While MacTools is a handy kind of all-in-one utility, especially for developers, it will probably be viewed by the casual user as primarily a curiosity.

Copy II Mac is simple to use, works as advertised, and just one damaged master disk with no backup can easily make its \$39.95 price tag worth the investment, so we're giving it a Thumbs Up. However, we do have four minor complaints.

First, the documentation is not well packaged. The disk arrived along with two booklets, a two page list of copyable products, and a two page ViewEdit supplement, all shrink wrapped but loose inside a cardboard cover. The cardboard could have at least been folded to form a pocket to help store all that paper.

Second, we were expecting but never found a discussion or description of copy protection schemes and how Copy II Mac overcomes them. A little user education might be fun.

Third, we noticed that the program will overwrite a destination disk without hesitation. It would probably be safer if, like Apple's own standard disk copy utility, the

program would first pause and verify that the user really wants to clobber a disk if it happens to already contain files.

Fourth, MacTools would be a lot more useful if, instead of duplicating so many Finder functions, it instead offered a utility to compare files. That would certainly be handy for us, because we're constantly discovering multiple copies of public domain software from two different sources, and find ourselves wondering if two programs with the same name and icon are really identical versions.

Still Advertising On A Shoestring?

In *Signal #18*, we described how Macintosh product vendors could arrange for a free listing in the upcoming *Macintosh Buyer's Guide*.

A similar opportunity has since surfaced in the form of *The Complete Macintosh Sourcebook*, a guide being compiled by Pat Ryall, who was the editor of *ST. Mac*. The *Sourcebook* will feature reviews and descriptions of hundreds of Mac products, and is scheduled to be published by InfoBooks in the spring. To be included, send your product to Box 1018, Santa Monica, CA 90406.

MS-BASIC Finally Arrives At Signal

For some unknown reason, we had to make a dozen frustrating phone calls to four different people over a ten week period, but we finally managed to get Microsoft to ship us a copy of their new 2.0 BASIC. (They're at Box 97200, Bellevue, WA 98009.) As far as we can determine, \$150 is still the suggested retail price.

We deliberately avoided 1.0 all this time because we knew that 2.0 was going to provide facilities for windows and menus and dialog boxes and all the rest of the graphics goodies for building Mac-style programs. Now that we've had a few days to check out 2.0, we're not sorry we waited. Microsoft BASIC is an excellent implementation of a programming environment, and we're giving it as enthusiastic a Thumbs Up as we did for Macintosh Pascal, back in *Signal #18*.

(Because of the considerable elegance of Pascal compared to BASIC, we still recommend the Macintosh Pascal environment as the preferred tool for teaching or learning a first programming language on the Mac, or for prototyping an application that requires full Quickdraw access or that will eventually be compiled. Microsoft BASIC is the way to go if what you want to do is hack around, or quickly get something up and running, or maybe write a scientific or business data processing application.)

While we have a number of projects planned that should fully exercise the product, our experience with Microsoft BASIC to date totals just a few hours. Still, we've already made a few interesting discoveries.

Our initial surprise came when we first opened the packaging. The disk seal warning about our license agreement was already broken! The box was shrink wrapped and looked like new finished goods, but perhaps it was just a used evaluation copy that Microsoft had repackaged before shipping it out again.

We were also surprised and pleased to find that BASIC isn't copy protected. However, we

noticed it's distributed with a 1.1 Finder, and all our disks happen to have a 1.1g Finder. BASIC also now comes in two flavors, a decimal BCD version compatible with the old 1.0, and a binary IEEE version for faster floating point calculations. When we copied the decimal 2.0 BASIC from its 1.1 disk to one of our 1.1g disks, we were amazed to see its icon change from the new 2.0 flowchart design back to the old 1.0 icon! Apparently, the icon is the only thing that actually changes, since BASIC still executes properly with all its new 2.0 features. However, we have noticed one other peculiarity when trying to load old 1.0 programs: they sometimes don't appear in the mini-finder for opening a file! We have to click directly on the 1.0 program's icon to start it up. Once it's been re-saved under 2.0, everything's fine, except its icon happens to have one pixel blanked out! These strange little quirks were news to Microsoft's customer support. Has anyone else noticed these problems?

Speaking of icons, we don't like the way it's impossible to tell whether an icon represents a program saved as text, compressed, or protected.

We like the clever way BASIC's list window can be enlarged to full screen by double clicking on the title bar. That should be a standard feature for all Mac software. On the other hand, the secondary list window seems a clumsy way of allowing multiple views of the same text. We prefer Lisa's approach of letting windows be split into multiple panes.

Now, if Microsoft could just put together a compiler for BASIC, we would really see a spurt in the number of available Mac software products.

This Month's Mailbag

I Can't Type My Own Name

I use my Macintosh about two hours every day for word processing. It works fine for about an hour at a time, and then it starts doing nonsense. With the help of a dealer, I traced the problem to loose keyboard cable connections. The problem occurs even when I do not move the keyboard or the cable. This problem is not only annoying, it also caused the destruction of several disks because of improper input from the keyboard. Can the cable somehow be soldered in its place to avoid loose connections?

Another problem is that I use the Mac in several languages and need more special symbols than presently available. Most urgently I need to use an accent like é, but on the letter c, and an accent like ê, but on the letters c, s, and z, and with the accent mark upside down. My name uses those accents, so I was forced to type this letter on an ordinary typewriter instead of on the Macintosh.

Dusan Djuric, College Station, TX

The connector we hate is the one for the mouse. It sticks out like a sore thumb and gets smashed every time we move the machine. We recommend being sure you've really found the problem before taking action as drastic as soldering. After all, loose connections that act up even when nothing is moved, and only after an hour or so, just don't sound very plausible.

Our typesetter can't accent the s and c in your name, either. Let's hope we hear from a font designer who has just the characters you need. You might also consider defining your own font using the Font Editor that's available in the Macintosh Software Supplement, and

also from most user groups. Note that the Imagewriter is capable of downloading and printing custom characters, but that's only useful when it's being driven by streams of ASCII characters with all the necessary imbedded control codes.
-Editors

More Untypeable Characters

Your reply to a letter in *Signal* #19 stated that the cloverleaf command character is not supplied by Apple with any of the standard fonts. That is not correct. While not available from the keyboard, the cloverleaf is supplied, as are a check mark and an apple. They are in the Chicago font, in positions 17, 18, and 20. They can easily be generated by any programming language and saved in the scrapbook for later use.

Donald Leeper, Buena Park, CA

Thanks for your tip. We may have implied it, but we didn't actually say the character isn't in a font, only that there isn't a way to output the symbol with the configuration shipped by Apple (in other words, without a programming language). As long as we're on the subject, we also think the key caps desk accessory would be a lot more useful if it had controls for the next and previous installed font and the next and previous point size for a font, to make it easier to explore and display special font characters.
-Editors

A Version Of Klondike Solitaire Surprises Us

When Klondike Solitaire first arrived from Computing Capabilities Corporation (465-A Fairchild Drive #122, Mt. View, CA 94043), we were very skeptical. After all, how could a game of solitaire on the Macintosh be any more entertaining than simply using a real deck of cards? Well, it only took about a minute of playing this particular version of Klondike on the Mac before we realized how shortsighted we were.

This implementation of Klondike makes the player compete against the clock. Simply by subtracting points when the player is idle (points are also lost for poor moves), the program becomes a rather fast moving and challenging action game that puts a premium on skill. It becomes surprisingly addictive.

The game is well designed for the Mac environment. All card turning (one or three at a time) and moving is handled by the mouse. Only legal moves can be made. Naturally, all shuffling and dealing is automatic. The program does a good job of cleverly managing card positions, so that a complete but still easy to read "tableau" fits nicely on the Mac's small screen. (Since cards often overlap quite a bit, it's sometimes tough to tell the red suits from the black. Game programs should really thrive once a color Mac appears.) Up to four players can compete, and the program maintains the top ten scores. The sound effects are optional, and a help menu controls three windows of rules and scoring information, along with an option to reveal hidden aces.

Even though we would prefer to see this Klondike Solitaire selling at around \$19.95 instead of the current \$39.95 suggested retail, we've gotten hooked on the game and always have a fun time playing it, so we're going to give it our Thumbs Up recommendation.

Signal #19
December 1984

Seven Odds And Ends For Lisa Users

1. Our experiments with input/output to the serial port driver in the 2.0 Workshop indicate that programmers should buffer their data and do READ_DATA and WRITE_DATA calls with chunks of at least 50 bytes at a time. That was the only way we could reach an apparent maximum throughput of about 700 bytes per second.

2. John Dubois of Aurora, Illinois, told us about a 7/7 trick mentioned on page 149 of the new Office System manual, but unknown to most Lisa users: if stationery pads are dragged out of a window and left on the desktop, the pads will then appear in the Desk menu. Choosing a pad from the Desk menu will tear off a new document and open it with a single click of the mouse!

3. We continue to receive a surprising number of calls from people who can't seem to link the font program we featured in *Signal* #13. Look through your file directory and find the demonstration Quickdraw "make" files that have "M/" in their name, like QD/M/BOXES and QD/M/SAMPLE. Use those examples as templates for creating your own exec files for linking programs.

4. Notice how the disk window is labeled "Backed up: never" after a full restore from floppies? That forces the next attempted backup to be full, not incremental. A better design would have been to set the last backup date equal to the last date on the floppies the disk was just restored from, to allow incremental backups to continue.

5. Our belated thanks to Gene Pope of Aurora, Colorado, who long ago told us the way to disable the debugger so that it can't be entered when the numeric pad's minus key is pressed on a Lisa with the Workshop installed: rename the SYSTEM.DEBUG and SYSTEM.DEBUG2 files to something harmless like SYS.D and SYS.D2, and then reboot. Disabling the debugger also allows the Environments window to be reached directly from power-up, a problem we originally discussed last year in *Signal* #6.

6. Don't forget that the Wastebasket retains the last document thrown away for *each* disk, not just the last document trashed. That can make users believe they've successfully removed all traces of a document on a floppy, even though it's really still in the trash. For example, imagine moving a document from the diskette's window into the Wastebasket, followed by moving a document from the Profile's window into the Wastebasket. Many users mistakenly believe the hard disk document flushes the floppy document out of the trash, and they eject the diskette thinking that all traces of the floppy document have been destroyed. But opening the Wastebasket will reveal that *both* documents are still in the trash. If you're working with confidential files, watch out for unflushed trash when you give your next floppy to a co-worker.

7. A letter from Bill Quirk of Mr. Computer, a dealer in Emporia, Kansas, revealed an interesting source of technical information for Lisa users. Apparently dealers have access to special Apple electronic bulletin boards which document known problems, including software bugs, in Apple's various product

lines. Have you asked your dealer for a copy of Apple's latest bug lists?

Club Notices And Newsletters

We like the layout, graphics, and content of the new, square-page issues of *San Diego Mac News*, the monthly newsletter of the San Diego Macintosh User Group. Write to Box 81444, San Diego, CA 92138, for more information.

A recently formed organization is the Eugene Macintosh/Lisa User's Group, Box 10988, Eugene, OR 97440.

Max Dommartin is trying to organize a Lisa club in the Los Angeles area. Write to 854 N. Croft Ave., Los Angeles, CA 90069, or call 213-852-4994.

FatBits is the newsletter of the Conejo Valley Macintosh Users' Group, available from Box 7118, Thousand Oaks, CA 91359.

November brought us the first newsletter of the Ventura County Macintosh Club, which can be reached at 1413-D S. Victoria Ave., Ventura, CA 93003.

NO MUG (their logo is a steaming coffee mug centered in the international barred circle "no" sign) is the New Orleans Macintosh Users' Group. Write to 3301 W. Esplanade #16259C, Metairie, LA 70002.

We recently received the first edition of *Professor Override's Almanac*, a publication of the national Lisa ToolKit Users' Group, 712 35th Ave., Seattle, WA 98122.

Subscriber Interests And Activities

Wayne Gibson, McMurray, PA:

I am a salesman and have used LisaDraw and LisaCalc for very well-received presentations. I have used LisaProject to manage a computer conversion. I purchased the 7/7 edition of Keystroke and am salivating in anticipation of automated customer/prospect files with clipboard access. Wow!

João B. Dias, San Jose, CA: I intend to use my Macintosh mostly for scientific word processing, programming in Modula-2 and Pascal, and terminal emulation.

Thomas P. Rielly, New Haven, CT: I am a student at Yale University. I use the Mac primarily for programming, word processing, and graphics design.

Max Dommartin, Los Angeles, CA: I am a commercial and residential interior designer. I use the Lisa for word processing, drafting floor plans, and graphics.

David L. Henderson, Huntsville, TX: I teach computer literacy classes at Sam Houston State University, using the Mac.

Devin B. King, Fountain Valley, CA: I am using a Macintosh and a Lisa 2/10 for applications ranging from accounting to advertising.

Karl Rasmusson, Toowoomba, Australia: I am interested in obtaining Mac public domain software. For the benefit of other Mac owners here in Australia, I would upload the software to The Australian Beginning, our own equivalent of The Source. I am also keen to correspond with any Mac users in the USA who would like to write me at Box 5449, Toowoomba 4350.

This Month's Mailbag

An Encyclopedia of Encyclopedia Faults

My wife, who happened to scan *Signal* #18 before me, commented "Doesn't this guy have anything else to do except complain?" I felt

the same way as I read *An Encyclopedia Of Macintosh Faults*.

Mr. Funk, during all his "penetrating" time at his Mac, must think that all Mac owners worry about the same little nuances and really care about the lack of features that he identifies. I found the article overly picky and basically not in the *esprit de corps*.

I trust that future issues of *Signal* will publish more constructive articles rather than the like of Mr. Funk's, or, for that matter, this one!

Bob Sprague, Portola Valley, CA

Every publication, even if furnished free of charge, has a journalistic responsibility to its readership. This responsibility includes publishing information that is only, to the best of their knowledge, accurate and timely. The *Encyclopedia Of Macintosh Faults* by Alex Funk was neither of these, and the *Editors' Notes* at the end did little to dispel the erroneous impressions that were promoted.

The article should have been titled *Misconceptions Of Macintosh Software*, as most of the encyclopedia was an opinionated criticism of assorted software-based functions, many of them inaccurate. For example, window positions are remembered by all applications. The command symbol is available on the keyboard (Manhattan font, shift-option-O). His few comments on the hardware are, for the most part, totally in error. In its present configuration, there is not enough room for a second drive within the Mac housing. The Imagewriter is, in fact, his praised Prowriter, but with enhanced graphics capability. The entire article proved that his requested idiotproofing is impossible.

In the future, please attempt to be more discriminating when choosing your articles. I had previously found *Signal* to be highly informative and helpful. Surely this was only a temporary lapse and the next issue will again be crammed with useful information.

D. Noland, Tulsa, OK

Something tells us we would have raised a lot less fur simply by choosing a more passive title, like *A Macintosh Wish-List*. Though we certainly didn't agree with all of the article, we still think it was worth printing. The only entry we now regret including was the bit about toggles, which are already on the Mac! (We're so accustomed to toggle-less Lisas, which we use for most of our writing, that it slipped right by us.)

Note that "window position" can mean the size and position on the screen of the window itself, or it can mean the position of the contents of the window. Although the Finder does a good job of remembering window positions, applications do not. MacPaint's window size and position can't be changed or moved on the screen. The contents of a MacPaint window are always repositioned to a standard starting point when a file is opened, regardless of where the file was positioned when last closed. MacWrite lets you move and resize its windows, but it forgets the settings once the program is exited, and it always presents an initial full-screen window when started. Open a MacWrite document, scroll it, close it, then open it again. The position of the window contents won't be remembered.

It's true that a number of custom fonts contain the command symbol, but users have to find and acquire those fonts on their own. The standard Macintosh and the collection of fonts shipped by Apple do not offer a way to output the command cloverleaf, one of the

most important keycaps!

General Computer in Boston would disagree that there's not enough room for two disks. They're currently offering upgrades that involve adding internal ten megabyte disks to existing Macs.

To us, the important point about swapping printers was not which model to choose, but that there should be a way to do it. -Editors

Which Package Will Fly?

I have recently purchased a Macintosh and want to use it in my work. I am the scheduler for an airline with 150 pilots. I think I need a relational database to do what I want, but am not quite sure anything can fill my needs. Enclosed is an explanation of what those needs are. I would appreciate it if you could analyze them and recommend a software package that you believe will meet the challenge. I will truly appreciate your time and effort in analyzing this information, as I am totally confused after looking at Odesta Helix, OverVue, Omnis 2, and MacProject. I am very anxious to make a decision and purchase the software before the year is out.

Rick L. Himrich, Louisville, KY

Sorry, we don't have the time or resources to do your analysis for you. However, a very brief glance at your specifications makes us think that all you really need is a good spreadsheet like Multiplan. Find a reputable programming consultant who is familiar with spreadsheets and who can provide you with glowing testimonials from satisfied customers. Give the consultant your specs and ask for a bid. A good programmer can probably generate the spreadsheet you need in about a day, at a cost your company can easily afford (especially considering the tremendous return on investment that should result). And don't pay the full bill until you're sure that what's delivered is exactly what you want. -Editors

A Vote For Main Street Filer

While reading the *Signal* #18 review of Habadex, I was struck with how satisfied I am with my database management program. I purchased Main Street Filer and am delighted with it. It is the only really good database program I know of that is out for the Mac.

Considering the poor reviews that publications are giving Macintosh database software, it is more than likely that many buyers will go wrong in their selection of a database package. I investigated the field pretty well before I purchased through mail order. Main Street Filer once sold for \$249 because it is a very powerful program (more so than is necessary for home use) and very easy to use. It now sells for \$125 through mail order and is cheaper than almost all of the competition. It makes use of all of the advanced Macintosh editing techniques and, unless I'm mistaken, it's the only one not copy protected! The only drawback is that it does not interface with other Mac programs. Of course, you can always make a MacPaint document out of the current Main Street display, but that is of limited usefulness.

Richard Bayer, Victoria, TX

Report From A MacWorks User

My office has a Lisa 2/5 and a Macintosh. The principle reason for purchasing both was the flexibility in Macintosh software and compatibility with Lisa when needed. However, attempts at finding truly compatible software have been extremely disappointing.

Even programs that seem to work will often have system errors while printing. I have had difficulty in several respects using the following software with MacWorks: OverVue (the most reliable, but still a few bugs), 1stBase, Main Street Filer, PFS:File/Report (will not run), and MegaFiler. Maybe I shouldn't be disappointed, since the MacWorks introduction warns that "certain programs from Apple and third parties may not be usable".

Nicki Leighton, Corpus Christi, TX

Looking For Lisa Products

I have a large file of research papers that were previously kept in an Apple II using PFS:File. I was able to convert the Pascal files to ASCII using a program called The Bridge, and I transferred them to the Lisa via modem. I would like to obtain software to manage this database on the Lisa. Are there any products to consider, other than LisaList, Omnis, and Keystroke?

An August 1984 article in *A+* promised many new software products for the Lisa. I checked into some of these. *A+* stated that Wadsworth Professional Software was coming out with a Lisa version of their acclaimed Statpro package. They have no such plans. It was stated that Sorcim would be coming out with SuperCalc 3 and SuperWriter for the Lisa. The company claims that, since their takeover, they have become less ambitious and are not developing Lisa versions of those packages.

Has anyone ever compiled a list of hardware that works in the Lisa expansion slots?

Does anyone have an accurate figure for the total number of Lisas manufactured to date? Apple won't tell.

M. R. Mark, Washington, DC

You seem as informed as anyone about Lisa products. The only expansion cards we've actually seen are the original two-port parallel card for printers and extra Profiles, and the Priam card for the large disk. We've heard rumors of, but never seen, four-port serial cards, apparently intended for multi-user Lisas running Unix. We've never heard figures on Lisa shipments that could confidently be called "accurate". -Editors

An Omnis Omnibus

Because of a need for a Mac database that could also mail merge, I sent for Omnis 2 from Organizational Software. I was unaware that the program was recently upgraded for the Mac, and the price increased to \$295. That is actually not out of line, considering the improvements in the new version.

I first received in the mail what was apparently an old version of Omnis with a thick manual. It made little use of the mouse and pull-down menus. I gave up trying to use it because of the crude graphics and poor documentation.

The new Omnis 2 is an excellent example of a Mac program, with pull-down menus, Mac-style editing, and a well-illustrated, thinner manual with a good index. After trying Chapter 2, a tutorial using demo data, I understood how the product worked. I tried a quick database, made some mailing labels, did a mail merge (a text editor is not needed), and felt comfortable with it. However, there is a lot more to learn, such as forms design, calculations, sorts, and so on. I have not yet needed to call their phone support service, and I have returned the registration for a second free uncopiable (ugh!) disk and a summary card.

The manual is so terse, it must be read thoroughly to understand all the program's capabilities. If

inexperienced users aren't willing to put in study time, they might want to start with a simpler package.

The *Macintosh Buyer's Guide* says Omnis 2 doesn't require a second drive. Maybe not, for a very small file. The capacity of Omnis 2 is well documented in its ads, which also compare it to Omnis 3, to which the user can upgrade. Who could want more? Searches and printouts are fast. Databases are limited to a single disk, but splitting up data into two or more files on separate disks is, for me, faster and no worse than swapping a group of disks that hold one huge file.

I like Omnis better than DB Master, my previous favorite.

Sidney S. Smith, New Canaan, CT

Tying Up A Few Loose Ends

Signal #17 contains an answer from Joan Dickey in response to our mailing list request in *Signal* #12. I'd like to thank Joan and also obtain the address of Organizational Software in order to obtain Omnis 3.

I finally ordered and received Pneu-Mouse, and have just put it in service on our Lisa 2/5. So far so good.

What do you think of 1stBase's ability to handle mailing lists? I'll check further on PFS:File and Report regarding same.

We have BPI General Accounting and can't use Keystroke since it's for 7/7, and BPI has yet to come up with a 7/7 version of General Accounting.

K. Y. Fisher, Phoenix, AZ

Organizational Software is at 2655 Campus Dr. #150, San Mateo, CA 94403. We want to hear more about your Pneu-Mouse. What does it really do for you? How about some details on the pneumatic mechanism? Just like we had to with Habadex, we postponed further inspection of 1.0 1stBase, because a new, improved version is now shipping. The original Keystroke was for the 2.0 environment. Maybe you can get the vendor to ship you that old version, although you'll lose the ability to do clipboard cuts and pastes. -Editors

Tecmar Font Moving Revisited

There is a way around the "insufficient memory" message you reported in *Signal* #15, when trying to use Font Mover on the Tecmar Mac Drive. You should copy Font Mover and your font files to the Tecmar boot floppy. Make all font changes using the floppy, then copy the System file from the floppy onto the Mac Drive, overwriting the hard disk's original System file.

Charles Greene, Franklin, TN

*Paul Dupree of Lexington Computer in Kentucky also called us to suggest that technique. And Tom Wooded called one more time to explain that his technique described in *Signal* #16 really does work, as long as the font files are kept along with the Font Mover as the only icons in the hard disk window outside of the single folder. -Editors*

Where Is LisaPaint?

I purchased my Lisa 2/10 last August and am, in general, extremely pleased. In comparison to the early CP/M and current non-Apple products, my Lisa is an absolute, unequivocal, resounding, superbly elegant dream machine. I cannot say enough about what a pleasure it is to use a computer that completely redefines the hackneyed phrase "user friendly". What a difference a few years makes in this industry!

But, excited as I am about my new Lisa, I am bugged by an annoying flaw. I am frustrated by the lack of an ability to trace or

draw fine detail. As a graphic designer, I want to digitize my designs (such as type characters and logos) into LisaDraw files. The mouse, as good as it is for cursor movement, cannot be controlled accurately enough. A graphics tablet would probably do the job, but can one be installed on a Lisa? Is there a reasonably priced video digitizer that can be installed on a Lisa?

What ever happened to the Canon color printer that was supposed to be available? My dealer ordered mine four months ago and I'm still waiting. Apparently vaporware doesn't just refer to software that fails to materialize.

Al Seyle, Camarillo, CA

Note that with good zooming software (Mac's FatBits mode is a crude example), even coarse input peripherals can allow detailed work. Is the current Lisa software and display really of high enough resolution to do what you want? Some kind of bitmap-based "LisaPaint" is what's needed to receive digitized video; LisaDraw wasn't designed for manipulating objects defined as only a collection of pixels.

We asked Apple about the color printer. They explained that only Canon is selling the product, which has been in stock and shipping for some time. But before Apple dealers can sell the printer, they must complete a qualification process to become authorized Canon dealers. Your shipment may have hung up waiting for your dealer to qualify.

-Editors

Another Brick In The Wall

Does anyone know how to change the QWERTY keyboard layout for American Lisa software into QWERTZ with ä, ö, ü, and ß?

It would be quite interesting to know whether the CP/MAC interpreter advertised in *Signal* causes considerable delays, whether there are any problems, and so on.

Past issues of *Signal* have given me the impression that the Mailbag is in danger of becoming something like a wailing wall for unsatisfied Lisa owners. *Signal* shouldn't keep that querulous note.

Peter M. Fischer,
Tübingen, West Germany

Was that a complaint about complaining?

The Workshop Hardware Interface documentation describes a SetLegends procedure that provides a way of pretending to have different keycaps, without physically replacing the keyboard. Our guess is that calling the procedure from a QuickPort program would leave the keys redefined for other desktop programs.

No one at *Signal* has ever done much with CP/M, and we certainly don't want to begin to get involved with such an old fashioned operating system now, so we'll have to be on the lookout for an outside reviewer.

-Editors

Which Language Is Best?

I wish to purchase Logo and am interested in knowing how ExperLogo and Mac Logo compare. Similarly, there are two BASIC implementations available, as well as two versions of Pascal. It would be helpful to me as well as to other Macintosh owners to get advice about which version to purchase.

Naomi Bolotin, Cambridge, MA

Of the products you mention, we've only looked at Mac Pascal so far, in *Signal* #18. Until we review others, you might want to check out a journal called MacTech that's devoted to Macintosh programming. It will undoubtedly be comparing competing language

implementations. Write to Box 846, Placentia, CA 92670. -Editors

More Habadex Blues

Jean Olson's Habadex woes in *Signal* #17 hit me where it hurts. I'm trying to forget I wasted \$200 on it myself.

As a newspaper editor, I need to know who to call on a wide variety of topics. And with a daily deadline, anything that saves time is a godsend. Of course, I rushed out eight months ago and bought Habadex.

Since I didn't, and still don't, have a modem, I bought it as a "package deal" along with the HabaDialer box they claimed to make. It was due to be released in two weeks. I spent quite a bit of my spare time hurrying to type in the contents of my bulging Rolodex file. When done, I started calling my dealer every day to see if the dialer had come in. Of course, as the months wore on, I didn't call as often, especially since I had to look up the number and dial it in the traditional manual fashion. Meanwhile, Haba wrote me to recommend sending in my disk for the 1.1 update.

Here's the kicker. I love the program. I boot it up, put it through its paces, and it's just what I need. I was further amazed when the upgrade took care of almost every one of the shortcomings I saw in the original version. But since my dialer hasn't come in yet, all the program really does is make my Mac beep. I'm the proud owner of a \$200 demo disk.

It's ironic. The software is sophisticated, yet this box they seem unable to make must be pretty simple. After all, I can make my Mac dial about 30% of the time by just pressing the handset over the air vent near the speaker.

The latest from Haba? "Oh, um, that's been delayed. The new release date is... um... January". But there is one thing the program can do for me right now, until I can afford a nice modem, or until "um... January". Any time I find myself too chipper, or my blood pressure too low, I can fire up my Habadex, and become as frustrated and depressed as I want.

Kurt Wanfried, Carlisle, PA

Hope you didn't faint when you read Kurt Thompson's HabaDialer report in *Signal* #18. Will you promise to bring us up to date once your dialer arrives? -Editors

Received, But Not Yet Reviewed

The Macintosh Buyer's Guide, a semiannual publication listing software, peripherals and add-ons, from Redgate Publishing Co., 3381 Ocean Dr., Vero Beach, FL 32963.

Moustrak, a pad to provide a work surface for Lisa and Macintosh mice, from Moustrak Inc., 1 Weatherly #503, Mill Valley, CA 94941.

Art Portfolio, MacPaint clip art from Axlon Inc., 1287 Lawrence Station Rd., Sunnyvale, CA 94089.

101 Ways to Use a Macintosh, a book by David D. Thornburg, from Random House Inc., 201 E. 50th St., New York, NY 10022.

HumanForms, MacPaint human body schematics, from The Reference Corp., 212 5th Ave. #1312, New York, NY 10010.

Macintosh Typefaces, a reference manual of shapes, sizes and styles, from Houlberg Development, Box 271075, Escondido, CA 92027.

31 All-Time Favorite Programs for the Macintosh, Microsoft Basic software from Brownbag Software, 8208 N. University, Peoria, IL 61615.

Factfinder, a free-form filing system for the Macintosh, from Forethought Inc., 1973 Landings Dr., Mountain View, CA 94043.

MacPoint, a monthly "pointer publication" to sources of information about the Macintosh, from MacPoint, 5704 Harper #201, Chicago, IL 60637.

Fluent Fonts, eighteen Macintosh fonts in a total of 39 sizes, from Casady Co., Box 223779, Carmel, CA 93922.

ClickArt Letters, thirteen Macintosh fonts in a total of fifteen sizes, plus seven MacPaint alphabets, from T/Maker Co., 2115 Landings Dr., Mountain View, CA 94043.

The Complete Book of Lisa, a book by Kurt J. Schmucker, from Harper & Row Publishers Inc., 10 E. 53rd St., New York, NY 10022.

Front Desk, Macintosh software for scheduling and resource management, from Layered Inc., 85 Merrimac St., Boston, MA 02114.

Signal #18 November 1984

An Encyclopedia Of Macintosh Faults

by Alex Funk

The Macintosh is a magnificent piece of work, but I have discovered numerous ways it could be better. My observations are listed here in the hope someone is reading this, someone who can do more than I can do, sitting here with nothing more penetrating than MacPaint and MacWrite (and now MacForth) to gouge at the software innards of this thing.

Abort key is not available globally. It is very easy to click on the wrong icon when opening a file, and then recovery is possible only after much time and disk finagling. A key to abort an unintended operation would be better. Command-period stops printing in MacWrite. Why not allow it to stop every operation in every application, like on the Lisa?

Caps lock is a mechanical push-on, push-off switch rather than being implemented with software as in almost all other contemporary microcomputers. If it were just a plain switch like all the other keys, there would be that much less to break!

Clock cannot be continuously displayed while working in an application. Also, there should be a way to enter the current date or time into a file with one keystroke in MacWrite.

Command? What is this "command" stuff? Why invent a new word when the old one (control) works fine? Command's cloverleaf symbol is unavailable from the keyboard. The only way I have been able to include it in any document is by creating it in MacPaint! All kinds of other symbols are available, but the examples I tried to type while writing this did not copy over to the note pad from the keycaps desk accessory.

Cut and paste from one disk to another has to go through an application. Trying to copy the clipboard file to another disk has not worked for me. It seems the only alternative is copying the scrapbook file, clobbering whatever was in the scrapbook of the destination disk. A cut and paste buffer in memory as well as on disk would be super.

FatBits entry shortcuts other than via the pencil should be available. Toggling from the pencil to the grabber with the option key

is nice, but other tools in FatBits should also toggle to the grabber.

Grabber could be used as a selection tool in a way that adds to the power of the lasso: command-grabber could simply drag any lassoable object without the need to first delimit it.

Halfsize output to allow small, higher resolution graphics would have been trivial to implement, since MacPaint draft mode outputs two (slightly overlapping) printer pin strikes for each screen pixel, thereby using ribbons faster, taking more time, and making lines too thick.

Housings for the Mac have room enough for two disk drives.

Idiotproofing of potentially disastrous actions like disk initialization should be accomplished with a command-mouseclick, not just a mouseclick.

Input of any ASCII character into a MacWrite file would be nice for controlling printers or downloading files into other machines that have less friendly editors.

Keyboard buffering is sometimes ignored. If you want to close an application and eject the disk, you have to wait for the Mac to do a certain amount of namby-pambying with the disk before you can type command-e, same as on the old Apple II.

Memory is woefully inadequate, resulting in too many disk swaps and a resultant loss of productivity. OK, so Apple (justifiably) did not want to be in the RAM retailing business. Still, the machine should have been designed to be expanded to a megabyte of internal memory, even with 64K chips. Considering the price of memory these days, and the direction of the marketplace, the decision to limit a supposedly serious machine to 512K was unconscionable. Also, upgrading to 256K chips should have been easier, if not for the user, then at least for third party providers. There are such things as reliable chip sockets, and their inclusion in the Mac would have been nice.

Note pad should automatically take you onto the next page when a page is filled, instead of beeping at you!

Printed output on a lowly MX-80 using the CP/M-based Fancy Font program looks better than Mac's output on an Imagewriter. Since there is an Imagewriter driver, why not an MX-80, or other? The Prowriter would have been a fine printer for the Mac. Inexorably tying the Mac to the Imagewriter was a blunder.

Redirection, such as listing any file to the console or printer, and directing a file from any input device to any output device, should not be absent, but only hidden from the beginning user.

Saving the current document to disk every so often, automatically and transparently, so you would have to remember to do it only at the end of a session, would be great.

Scrapbook takes a lot of time to thumb through. It should have a pictorial index like Print Catalog in MacPaint. Then you could select a picture by clicking on its (greatly reduced) icon. If a scrapbook picture is large, sometimes part of the image shows, but sometimes "too large to show here" is all it offers. That seems inconsistent.

Screen should blank out if there's no activity for a certain period of time (adjustable from the control panel), and come back on after a keypress. The Lisa and even the lowly DEC Rainbow do that. It's not like the Mac doesn't have an internal clock or anything...

Scroll bars are a necessary evil to select portions of text far away from the insertion point. But it seems that merely running the mouse against the border of a

window (up, down, right, or left), with the option key held down, would more naturally scroll a window. Running the mouse all the way over to the elevator and back again seems tedious.

Shift-click, to extend selections, should be global, to allow operations such as copying multiple scrapbook entries to the clipboard. Admittedly, the clipboard is only intended to hold one item, but as a three or four item stack it would be terrific. Although the scrapbook holds multiple items, it is much more cumbersome to use.

Sound output is nice, but since the circuit is essentially an analog generator with a bipolar amplifier at the output, why does the bell sound end with a very definite digital clunk even though it decays? Why not make the sound port bidirectional so as to also be a sound (or general analog) input, on the same connector? Then programmers could try their hand at speech input programs or general one-channel (or with an external mux, multichannel) data acquisition programs, without (much) extra hardware. Also, the sound generation circuit takes up way too much space (badly needed for more memory) on the Mac's board.

Titles will display on the last MacWrite page if there is text on the last line of the previous page.

Toggles would be better for switching selected text from plain to fancy and vice versa. Instead of command-b for bold and command-p for plain, you would only have to hit command-b to toggle the selection.

Windows in MacPaint are immotile, and severely limit the size of graphics. Why the wide borders around the window? If the window has to be a fixed size, it should be bigger. We could live with only one tier of the most frequently used patterns, with others callable through Goodies.

Window positions should be remembered by applications. It's tedious to reset windows to favorite positions every time an application is opened.

Wrong disk insertions should beep rather than just spit disks back out. When using more than two disks, you can repeatedly insert the wrong one by failing to correctly read the dialog box prompts.

Editors' Notes: Your wish list definitely has the flavor of being compiled by someone who likes computers for their own sake, and who enjoys poking machines' "innards". Our own biggest wishes would be for an integral hard disk, a Finder with decent document capacity, and some good business data processing software.

We, too, thought the clock was too shy, until we found it hiding under MacWrite's window. Note that copying the clock allows the date and time to be pasted with just a command-v.

A 512K limit is unconscionable? Do you hear what you're saying? Wasn't it fairly recently that everyone was running quite successfully on 32K? We think the problem is not that vendors aren't putting in enough memory, but that they (and their customers) haven't discovered how nicely demand-paged operating systems using virtual memory can get by with miniscule amounts of RAM. Seems to us that Apple gets away with defining and controlling the product and its peripherals as it suits them because Mac is popular and unique, not just another DOS machine.

Doesn't your automatic save idea defeat the undo concept? We like your typestyle toggles, but command-p would still be handy for clearing up text that's bold, italic, and underlined all at once.

The Rest Of Our DataTower Findings

Our first installment in issue #16 about Priam's huge DataTower disk for the Lisa mentioned some of our initial findings about the product as we installed and tested it for the first time. (Before we forget, our thanks to Howard Pearlmuter for reminding us that the surprising DataTower icon we found probably originated from Priam's interface board, not Lisa's old ROMs.) Since that issue, we've made a few more discoveries.

In the minus column of our evaluation sheet goes the disappointing news that, unlike the support for Apple's own disks, Lisa's 7/7 operating system does not currently provide the option to partition the DataTower for MacWorks. In the plus column goes the good news that 7/7 supports an enormous number of files, so that the entire disk can easily be put to use. At one point in our testing, we loaded the DataTower with 4,735 documents and folders occupying almost 70 megabytes of disk. Unlike Mac's Finder, which begins to thrash when even fewer than 100 files have accumulated, 7/7 (and even the 3.0 Workshop!) took the load in stride, performing opens and saves as quickly as when the disk is empty.

We were able to complete the save and restore tests we mentioned in the first installment, and ended up with both good news and bad news. A total backup of the disk (remember that the whole disk is copied to 1/4" tape cartridges, regardless of how much data is actually present) takes about 13 minutes for the first tape cartridge, and then another 9 minutes for the second, final cartridge.

Unfortunately, 7/7 crashes at the end of a DataTower backup, and the Lisa must then be rebooted. However, the backup tapes are still good, as we verified by doing a restore, which begins with erasing and initializing the disk (14 minutes), then reading and loading the first tape cartridge in 11 minutes, and the second tape in 7 minutes. The movements of the tape imply that backups perform a read-after-write for verification, but we haven't seen any documentation to support that theory. One discovery was that a Lisa with the Priam interface card installed (but the DataTower unconnected) can't boot 2.0 off a Profile, though most DataTower users probably won't be interested anyway in keeping 2.0 around. (We happen to have one Lisa that needs to run both 2.0 and 3.0 at different times.)

If you're using 7/7 or the 3.0 Workshop, need a disk with a large capacity and fast backups, don't need MacWorks, and don't mind loud fans, we can recommend the DataTower. The unit we received has been fast, reliable, and convenient. We're giving it a Thumbs Up.

A Landlord's Tussle With Habadex

by G. Kurt Thompson

As most Habadex users know by now, Version 1.0 had quite a few problems and was subsequently replaced by Version 1.1, which was to have corrected those problems as well as add several new capabilities. For the most part, I will restrict my comments here to Version 1.1 and attempt to review its best and worst features.

I purchased Habadex 1.0 in June 1984, and dutifully copied the master disk. I then began the process of entering the names and

addresses of nearly 400 mobile home lessees. About halfway through, with 185 records keyed in, a local power outage spiked the file. I tried to recover the data and lost the backup copy in a subsequent power outage. That afternoon I bought an uninterruptible power supply and the data entry process began again. Luckily, the Habadex master had not been in the drive and was unharmed.

Once I had my records in Habadex, I tried to print labels for a mandatory mailing that had to take place by the middle of July. I quickly found that Habadex would not print the labels except one on top of the other and with draft quality. I immediately contacted Haba Systems and was told that 1.1 was finished and a copy was promised to me by return mail. I am sure that it was mailed, but I had to request *three* shipments before I finally had the new version on hand. In the meantime, three more weeks had passed with the deadline closing in. I went back to work in earnest, knowing that I was running critically short of time.

Habadex was touted to hold up to 1,000 records and give immediate access to each and every one. It does, in fact, give very quick access to any record, but it is full to capacity at around the 400 record level. My disk contains about 386 individual records and has contained as many as 396. At that level, I was running out of disk space according to the running tally and had only 2K of empty space remaining. So, I removed a number of the records to regain working space. To my utter horror, after I had deleted ten full records, I regained no space whatsoever! It appeared that the counter could add but not subtract. I tested this theory on a disk with only 36 records and the same thing occurred.

To avoid running out of disk space, and it is critically important not to do so, refrain from deleting records when they are no longer needed. Instead, use the same old record and simply overwrite your new information into its fields. This is not a proper approach, but it will certainly help. Version 1.1 occupies more disk space than 1.0, so when I transferred records from a disk having about 16K remaining, I was suddenly left with about 4K. I have ordered the Desk Accessory Mover from CE Systems in Des Moines in a last ditch attempt to free up more space.

I said it is critically important not to get the disk too full. Habadex 1.1 will support printing in standard quality (though the documentation says high), a vast improvement over 1.0, which would only print in draft quality. But if you unwisely get close to the 400K capacity of the disk, you will discover that Habadex will no longer print in standard quality. Since draft quality is unacceptable for any business correspondence, this effectively disables your mail merge capability. All other printing functions are also reduced to draft quality.

At another time, I ran into serious trouble with my Habadex. With 398K on the disk, I tried to delete a record that had inadvertently been entered twice. As soon as I did so, Habadex bombed. After trying everything I could think of to salvage the disk, I called Haba Systems. No one seemed to be able to explain what had happened, and I received the all too familiar "we'll send you a new master disk!" When you have nearly 400 records tied up in a piece of software that has bombed, the last thing you want is a new master disk.

This problem persisted for about four weeks before I happened to find an unlabeled copy of my disk that

predated the bomb. I very carefully made a copy of the old disk and then deleted the duplicated record. No bomb appeared! I noted that I had 4K remaining available on the disk. After three days of work, I was able to update the four weeks of changes that had occurred since that copy had been made. I then tried to create more space, but was unable to get credit for any deletions of records. Over a period of time, my disk finally reached 400K (with no warning from Habadex) and I discovered that the print quality had reverted to draft only.

If you select the list printing function of Habadex, you will undoubtedly discover that it prints the lines of the list too close together to read easily. One way around this is to either indent or outdent the first field you include when selecting fields and designing the list.

Fields can now be renamed within Habadex. This was one of the most useful changes made in the new version. However, the 1.1 Addendum lists quite a few reasons why you should not rename approximately 14 of the 19 fields. Furthermore, there is no explanation whatsoever as to how to rename a field. I found by experimentation that I could get a total of 16 characters on two lines. If you want to use two lines, just space after the word you want on line one. Your next word will automatically be placed on line two. If line one is to be made up of more than one word, you have to place a period or some other barely noticeable character between the two words. Be careful not to try to place too many characters on each line, or more than 16 on the two lines.

If you have renamed your fields and have created two or more different disks (each with different fields), do not try to place one in the internal drive and the other in the external drive. I tried this and found that the Habadex disk in the internal drive worked fine. The one in the external drive will present you with its renamed fields and lead you to think that you are reading it, but in fact the data from the disk in the internal drive will fill its fields. There is a way to get the two disks to read properly. Before trying to extract data from the disk in the external drive, quit the application in the internal drive, close the windows, eject the internal disk, select the icon of the disk in the external drive, and open it. Now everything will read properly!

One of the fields I had renamed was entitled "Lease Anniversary". It is the basis of one of the most frequent sorts of my disk. I can call up all the leases expiring during a particular month and send renewal leases and statements to each tenant with an expiring lease. I found that dates which were in the month/day/year style (such as 11/01/84), would sort in order, but all were listed prior to the "A" in my index. By inserting a letter designator (A to L) for each month, I could get them to spread out over the whole first half of the index. I could then call each month up for viewing separately, instead of having to flip through 21 pages to find a tenant with a lease expiring on the 31st of December. That's especially important considering that when you make a change to a record and then close it, Habadex returns to the first page of the sort!

I continued adding letter prefixes and everything worked well until I had completed entering the prefixes on the first nine months of leases. All of a sudden, I discovered that Habadex would not select a lease with a "J" prefix. I could access the J's by calling up the I's and flipping a couple of pages. The K's worked fine. I tried a few things and found

that the J's would sort if I used "J10/01/75" but not if I used "J 10/01/75". The first nine letters of the alphabet sort fine, but J cannot be followed by a blank space. Another fifteen hours of input was scrapped. I am aware that Habadex was not intended to be a database per se, but my file is little more than a mailing list with phone numbers, lease expirations and emergency data.

One of the great features of Macintosh is its ability to create letterheads, but that isn't allowed with the Habadex mail merge function. You also cannot justify both margins in your business letters. Habadex 1.1 prints the date in a different format than 1.0, but it is still in the wrong location for a standard business letter.

With a file of one record, Habadex only requires about 20 seconds to store your new entry. It takes a good typist only about a minute to input all the fields on the screen. However, with 300+ records, nearly three and a half minutes are necessary to store additional records. This time increase appears to be linear and will start showing up easily within the first twenty or thirty records. Once your records are in place and you have to update some of your data, a one character change to an existing record will again necessitate that same prolonged wait. My secretary spent only a fourth of her time typing in data and three fourths waiting for Habadex to store it.

High quality printing is impossible with any function. Try mailing labels. If you select high quality, you are in for a long wait while the Macintosh starts spooling. At the end of all that spooling, Habadex will stop without printing any labels. Now try standard quality and your mailing labels will be printed, but watch out! Did your labels take more than one page to print? Or, did you select "continuous sheet"? If so, you probably lost the first row of labels on each succeeding page! Go back and select "cut sheet", and your labels will be printed. When Habadex reaches the end of each page, you can click "OK" when asked to insert another sheet of paper, and you will not lose any more rows.

Calendar appointments transferred from 1.0 to 1.1 must be "reaccepted" day by day after the transfer. If you used more than one line for each entry in 1.0, you will lose your additional lines of information when you choose "accept" in the new version. To prevent this loss, first enter a later time (even a minute later on each line below the initial appointment). This will save the line and keep it in sequence. Refer to the excellent article written by Cassie Stahl and published in the October 1st issue of *InfoWorld*. Any month that forces the calendar to have six rows of days (any month during which the first of the month occurs on a Friday or Saturday), creates another problem. Only the top of the sixth row can be seen, and any calendar information entered into days on that last row cannot be read when viewing the entire month. You must select the particular day to see any of your appointments. This occurs during September and December of 1984 and March and June of 1985.

Eventually I obtained a HabaDialer. I would finally get to "reach out and touch someone" with my Macintosh. I unpacked the HabaDialer, read the installation instructions, and promptly visited one of my local suppliers for a modular plug as described in the documentation. Having a six button phone system and noting the large number of phone wires under my

desk, I decided to call my phone installer. Four hours and four phone calls from North Carolina to California later (not to mention the \$140 labor bill from my installer), my HabaDialer was pronounced unfit for service by its designer (Ron Debry) who listened to its futile attempts to dial out during one of those long distance calls to California.

Maybe some good will come of my experience after all. Mr. Debry seemed genuinely interested in the troubles I was having with Habadex and the HabaDialer. Habadex could be made into a first rate product despite the low rating it has earned from me to date. After having invested the \$199.95 plus tax purchase price and several hundred hours of time with this software, I have to reluctantly admit that I have been both spoiled and disappointed by Habadex. I have been searching for a database to replace Habadex, but have so far been unable to find anything on the market that even comes close to its ease of use and clarity. I would much prefer that Haba Systems worked out the bugs and allowed this particular piece of software to reach its true potential.

Editors' Notes: You say you've been partly spoiled, huh? We'd hate to have to use the software that totally disappoints you. You probably deserve a medal, because the other six or so Habadex users we've talked to all sounded like they quickly gave up out of frustration. Be sure to let us know when you find what you're looking for. We'd also like to thank Barbara Schreiber, a realtor in New Jersey, who wrote us to mention her problems with the undocumented 1.1 copy protection, and also Carol Runkel of Long Beach, California, who wrote us to describe her encounters with Habadex bugs while trying to print mailing labels.

Are You Advertising On A Shoestring?

Macintosh product developers can enjoy some valuable publicity with a free listing in the March 1985 *Macintosh Buyer's Guide*. To reserve your free listing, obtain the necessary form from Managing Editor Tom Kempf, Redgate Publishing Co., 3381 Ocean Dr., Vero Beach, FL 32963. Hurry, forms must be in by December 15th.

Macintosh Pascal Arrives At Signal

A released (not preliminary) version of Apple's Pascal programming environment for the Mac recently arrived here in conjunction with nationwide dealer deliveries, and we're very impressed with the product: it receives what is probably the most enthusiastic Thumbs Up we've given since we first laid eyes on the Lisa almost two years ago.

Macintosh Pascal is primarily an educational tool, and not really a program development system for creating commercial, standalone software products, but it's still a fantastic product. If you know any students wanting to learn programming, tell them Macintosh Pascal is definitely the way to go. This is the first programming environment we've seen where it's actually fun to make mistakes, because fixing bugs and rewriting and rerunning code is so effortless. True, the programs won't execute with blazing speed, but at least all you need is a lowly 128K Mac with one disk (the software is \$125 suggested retail), and it's amazing

how much you can do with only that minimum configuration. Plus, "inline" procedures provide access to all the ROM routines, so programs with standard Mac-style interfaces can be written.

In the few weeks we've had so far to use Macintosh Pascal, we've only come up with three complaints. First, the modem file opens at 300 baud with no apparent mechanism to set it to 1200 or 9600 (although only the documentation, and not actual testing, has been our guide on this point). Second, the printer file (port) can only be opened for output, not input, even though we know it's really bidirectional. (Poor I/O procedures have always been the bane of Pascal implementations, haven't they?) Third, we sure wish the product had been released a year ago so that Apple could have bundled it like MacPaint and MacWrite, shipped one with every machine, and thereby avoided the blasted copy protection that burdens this product like so much other Mac software.

This Month's Mailbag

Iowa Certainly Needs Software

I am looking for a printer driver to allow the Lisa to take full advantage of the additional width of the wide carriage Imagewriter. I am also in need of a billing program that supports the following steps for invoicing sales in a print shop: create table of material prices, create table of labor prices, enter number of units, automatically access table of prices and calculate invoice, post to accounts receivable.

Joseph Daley, Creston, IA

I'm looking for a terminal emulation program to run on a Lisa under 3.0 or MacWorks. I need the program to emulate either a Tec 500, Soroc IQ 120, IBM 3101-10, Televideo 950-C or Beehive DM1A. Please call me at 515-224-1992 if you know where I can find such a package or if you'd be interested in sharing development costs.

Trelen Wilson, Des Moines, IA

The new 3.0 Quickport facility in the Pascal Workshop provides a "standard", a VT52/100, and a Soroc terminal emulator along with documentation for writing your own custom version, any of which can exist as a desktop icon. -Editors

Have You Indexed Your Clip Art Lately?

I am enclosing a clip art index I created. It lists images from three clip art programs I have purchased: *Clip 1* from Frazier, Peper & Assoc., *ClickArt:Publications* from T/Maker Co., and *McPic! Volume 1* from Magnum Software. The object of the index is to make it easy to find an image when you need it. Obviously, this would be a better index and directory if it included all of the available clip art disks for Macintosh.

So, my plea to vendors: please make disks containing clip art (only those disks which other Macintosh owners can purchase) available to me on a loan basis. I will integrate an index for each of those disks into my master index and return your disk of clip art along with a clean copy of the master list.

The reason why I believe vendors might want to do this for free is because I will supply the master index for free, with no restrictions on its use. Clip art programmers, retail computer stores, clubs and individual Macintosh owners will all profit, since I will freely make copies available to all comers. I would expect that stores and clubs would in turn make the index available to customers and

members. At most, I would charge requestors the cost of photocopying the index, or ask for a clean disk if the index is desired in that mode, plus postage as required.

I am retired and thus have the time to fool around with this project, in case you are suspicious that there is a catch somewhere.

Philip C. Russell,
430 SW Crest Circle,
Waldport, OR 97394

We think your index is great! It's bound to be popular among users, so vendors will be wise to participate. How about giving it a formal name, like the "Russell Index"? We hope you get a good response. -Editors

Received, But Not Yet Reviewed

DaVinci Buildings, Interiors, and Landscapes, three MacPaint image disks for architects and designers, from Hayden Software Co. Inc., 600 Suffolk St., Lowell, MA 01853.

ThinkTank, an outline processor for the Mac, from Living Videotext Inc., 2432 Charleston Rd., Mountain View, CA 94043.

Keystroke, a data base and report generator for Lisa, from Brock Software Products, Box 799, Crystal Lake, IL 60014.

Signal #17 October 1984

This Month's Mailbag

Mailing Labels And 1stBase And PFS And...

This is hardly a review of various database packages, but I can give you some very quick impressions.

1stBase seems well put together, and has on-screen help menus that nearly eliminate the need for using the manual at all. Nearly, but not quite. It supports two disk drives, and is partially copyable. You can copy files or even the entire disk to another disk, but the original disk must be inserted before you can run the program. I didn't find any indication that a file could extend beyond a single 400K disk, but it appears a large file could be maintained on a hard disk. If there is a method to calculate the largest possible file size, I couldn't find it. Since I have a requirement to sort nearly 3,000 entries, ultimate file size is quite important to me. I couldn't tell if 1stBase can take advantage of the new 512K Macs or not.

It does support ascending or descending sorts on several fields, it allows you to transfer data from one file to selected fields in a different file, and it allows you to append data from one file to another. Nice! Deleted records are not actually deleted, but flagged so they show up dimmed on the screen. They can be resurrected if desired. The deleted records are physically eliminated when the file is "compressed". That is a very desirable feature. I hate databases that actually erase deleted records, with no chance of recovery.

Searches allow simple wild card entries, but it is not possible to search for a string of three or four characters somewhere in a field. Reports can be sent to the screen, to the Imagewriter, or to disk. Reports that are 85 columns or less are automatically printed in an 85-column format. Reports that are more than 85 columns wide are automatically printed in a different font, in a 132-column format. Also

very nice! Reports saved on disk can be accessed and edited with MacWrite. Of course, MacWrite can handle only limited length files.

Mailing lists are also possible, but it took quite a bit of poring over the instruction manual to find out how. Maintenance of mailing lists is a prime use of a database! I'd have a special chapter, conspicuously placed in the table of contents, describing maintaining, sorting, and printing mailing lists. Unfortunately, 1stBase cannot use any printer other than the Imagewriter, unless a separate program such as the Daisywheel Connection is used. The reports are actually sent as ASCII files, with a beginning "set-up string" of characters to set the Imagewriter to the needed configuration, so extending 1stBase to allow users to set up their own printer configuration would be an almost trivial programming task, and would let virtually any printer be used, without any special additional programs. For example, I could print mailing labels with my trusty old Mannesman Tally, with its straight-through feed that bypasses the platen and thus prevents popping the labels off the backing during printing.

I found 1stBase an acceptable database, with many very good features. But its inability to (a) allow an advance calculation of the number of records that can be maintained on a single disk, (b) support databases that extend beyond a single disk, (c) support full wild card searches, and (d) allow a customized printer set-up string make it unsuitable for my own needs.

Anyone who has used PFS:File and/or PFS:Report on any other computer will be familiar with its basic characteristics on the Macintosh. The standard Macintosh menus, icons, and mouse selections are used. Two disk drives are supported. The program is quite tightly copy protected (nothing can be copied from the program disk), but a backup disk is supplied. PFS:File very readily maintains mailing lists. In fact, you can print mailing labels with PFS:File alone. PFS:Report is only needed for more elaborate reports. PFS:File allows sorts on any one field. Files can be copied, in whole or in part, divided into smaller files, or two files can be merged into one large file.

It is fairly easy to calculate the probable disk space required for any proposed file. Individual forms are easy to design. You can't delete a record, and then change your mind. Deleted records are gone forever, which is not a good feature! Searches are very flexible, allowing equals, between, not, and so on. Wild card searches can easily find any selected string of characters, anywhere in a data field. For example, a search for ".ile.." would find records including "file", "pile", "while" and so on. That's very handy if you can't remember the exact spelling of a person's name.

PFS:Report is designed to prepare and print tabular reports. It supports calculations upon fields, and it can automatically perform an alphabetical sort of the first three fields when printing a report. Other sorts can be performed in advance of printing. In effect, you can sort and print mailing labels by ZIPs, and alphabetically by last name within ZIP codes. Reports can be sent to the screen, to the printer, or written to disk and (if small enough) then accessed with MacWrite.

What would I like? Well, I'd like 1stBase with the PFS printer control flexibility and DB Master's ability to maintain files that extend to several disks. Our local dealer has OverVUE, but I've only had time to take a very cursory look at it. It

seems to resemble a strange sort of cross between a database and Multiplan. I had the impression I could easily set up a complete double-entry bookkeeping system for my wife's farming operations with it. However, the blankety-blank manual was about the most wretchedly written monstrosity I have seen. Why must manual makers make it so difficult to find out what a program can do? They seem to spend all of their efforts telling you how to do things, regardless of whether you want to do any of those things or not. I want to know what a program can do, and then find out how to do it!

My telephone offer to send you a Habadex file with 275 entries still stands. I feel Habadex is overpriced. I'd be willing to fork over \$100 for it, but not \$200. Also, it should be usable as a desk accessory, and not have to always be loaded in place of the program already running. I have put as much time into Habadex as I intend to.

Jean E. Olson, Cambridge, IA

We haven't had time to do anything more than inspect the packaging of the complimentary copy of 1stBase that recently arrived. Although the disk is elaborately buried inside the manual's back cover with a special seal that (once it's opened) invokes the license agreement, we noticed the binding is poorly glued, and simply pulling the cover away from the spine allows the disk to be slipped out without ever breaking the seal! They should have just sealed the disk shutter like Habadex does.

Aren't these various Macintosh copy protection schemes a real pain? We like Lisa's method of allowing the user to make any number of copies of "protected masters", but it's a scheme that's fairly easy for pirates to bypass.

Isn't it the operating system's job to worry about multiple devices, not the application's job? The Mac needs a printer driver mover, just like the font mover. The System file's printer interface has actually been designed with such interchangeability in mind, but Apple seems to be a little tight on support in that area. We've heard one reason is that Apple is concerned about letting just anyone offer any kind of printer for the Mac, thereby degrading the product's "overall quality". Still, plenty of vendors seem to be coming out with various methods of attaching non-Apple printers. We happen to have an Imagewriter that does almost nothing except print miscellaneous mailing labels. We've found that as long as we use high quality labels (like Avery), everything works fine. Cheaper labels tend to be thicker and stiffer and end up peeling and jamming.

Your observation about a cross between a database and a spreadsheet hints at what we think most computer users really need: a mix of the two that offers easy manipulation and editing like a spreadsheet along with the size and sorting power of a huge database system.

Thanks for responding to our search for a large Habadex demo file. Haba Systems eventually answered our request, but the disk they sent had only 18 records! Fortunately, a subscriber in North Carolina actually has managed to enter 396 records, while at the same time discovering the package's pros and cons. He's finishing up his review for us now.

Notice how so many applications for the Macintosh would be more useful if they were implemented as desk accessories? Desk accessories are actually just a limited way to do what the Lisa already does much better:

simultaneously displaying windows for multiple applications. -Editors

Testimonial From A Satisfied Customer

This is an answer to an issue #12 request by K. Y. Fisher for Lisa software to maintain mailing lists. I would like to bring to your attention the existence of Omnis 3 database software published by Blythe Computers of England and distributed by Organizational Software of San Mateo, CA.

I have had Omnis 3 on my Lisa 2/5 for two months and find it quite flexible. While this program is not simple to learn, it is a relational database and very powerful. It takes advantage of Lisa's 68000 quickness, which is not usually evident under the Lisa operating system. I am presently using it for a mailing list of over 1,400 names and can sort it by ZIP, by alphabet, or whatever other sequence I desire, and can print labels even three across. The information takes less space in Omnis than it would in LisaWrite, and I can download the list onto diskettes and free up the space for another use.

I understand that it will be possible to operate Omnis from the desktop by the end of 1984, but at present it uses the Environments window.

Joan D. Dickey, Moss Beach, CA

Any Pascal Workshop program that meets certain requirements can execute from an icon-based window on the 7/7 desktop and can cut and paste with other Lisa applications by relying on the new Quickport facility in the 3.0 release.

Quickport appears to be the vehicle that products like Omnis or Keystroke from Brock Software Products are using to finally start filling the vacuum known as third-party Lisa desktop software.

There's also a version called Omnis 2 for the Macintosh, but InfoWorld gave it a scathing review in its September 10th issue. -Editors

A Report On Aztec C

I just received my Aztec C compiler (professional version) from Manx Software Systems, and I thought I'd give you my impressions.

First, why did I choose this compiler? It was the only one I could find on the market that was a true compiler, that offered access to the Toolbox, and that didn't require an assembler. I'm pretty happy with it. The first thing I did was write a standard C program, then modify it to:

```
/* HELLO - print "Hello world!" */
/* Define function calls */
#include <quickdraw.h>
/* Define constants */
#include <font.h>
/* Let Quickdraw set font,
then print text & newline */
main () {TextFont(newYork);
printf("Hello world!\n");}
```

This works! Aztec C provides a restricted Unix-like environment in which you can write programs that act like they would on any computer: they display text on a scrolling screen, and accept keyboard input. Mac capabilities like the mouse pointer aren't supported. The above program can only be run from this limited environment (it can't be started from the Finder).

The nice part is that Aztec C also allows you to write programs which use Macintosh features like the mouse and menu bar and that can be started from the Finder. The catch is, these programs are a lot harder to write, because they're event-driven. You can't just read keyboard input, you also have to worry about mouse clicks, making a menu selection, and even disk insertions. I did write a program which opens a window and grays the Edit menu.

When a desk accessory is selected, it un-grays the menu choices. Unfortunately, it doesn't do anything meaningful, but it took a couple days of learning just to get it that far.

The system comes with a program editor based on the Unix editor named vi. It's OK, but it isn't a true screen editor. Manx has promised a mouse-based editor.

So Aztec C is a real Mac development language. What's wrong with it? First off, the documentation isn't too hot. An index would be a real blessing, but even a table of contents would be nice. The \$500 price is a bit steep. The system takes up most of a disk, which means single-drive development is really hampered. And using more than a couple of Toolbox managers (e.g. window, event, Quickdraw) in one module is pretty difficult, since on a 128K machine you don't have enough memory to compile. Luckily, there's a linker which allows routines to be compiled separately. It's copy protected, but not too obnoxiously: you need to insert the original disk when you start running the C environment.

The biggest problem isn't really Manx's, it's Apple's. If you don't have a Lisa, you have a real hard time working with resource files. You can't get the Finder to display different icons for files because there's no resource editor or compiler.

David Dunham, Goleta, CA

This Letter Was Titled HELP!

I am writing in an attempt to find someone directly or vaguely associated with Apple that either knows some answers or cares enough to find them. In July 1983, my company purchased a Lisa with two Profiles. This was a very nice place to work prior to that date. Please do not misinterpret my meaning, as the areas that the Lisa functions properly in and that are not shrouded in mystery are very remarkable and we have benefited greatly. But, ulcers was never a common word in this building prior to that date either, assuming ulcers can be caused from utter and complete frustration.

From the beginning, LisaCalc has chosen to destroy documents with no rhyme or reason. The response of the personnel at the toll-free support number was "I have not had any other customers with that problem. Please send the documents to us on disk." That was after six weeks of phone calls and rekeying by myself and our salesman. I absolutely broke down with that suggestion. I did not even have enough diskettes to keep a current backup of the system, could not get any from our dealer, could not find a catalog supplier who knew of any, and she wanted me to mail her some! Upon regaining my composure and explaining the situation, she very kindly said she would send me at least two disks to use to send her the documents. It is now thirteen months later and I am still waiting for the two disks to arrive.

One suggestion was that I may be building documents too large for the limits of the program. When I asked about the limits of a LisaCalc document, no one knew. To this day, I guess no one knows.

When I learned of the 2/5 upgrade for the Lisa from an outside source, I again called the 800 number and inquired as to why I had to find this information by accident. She was unclear as to if the upgrade would help our situation or exactly what the upgrade consisted of, but after all, it was free. My thought was that it should come with full hospital coverage.

At the suggestion of our dealer after the upgrade was installed, I

duplicated every document we have on file, renamed same, saved same, and threw away the original versions. I have to say our losses are greatly reduced.

We are constantly haunted with system halts that have to be corrected by pushing the reset button on the back of the console, which evolves into a repair having to run, which causes all folders to be destroyed. It takes two hours to re-fold 170 documents after the 30 to 60 minute repair. Also, our extra Profile has refused to perform on three separate occasions.

Now you'd think that this is one woman who knows the value of backups, right? Well, I have plenty of the original 5.25" disks, which were not available until our system was three months old. Then our dealer ran right over here with a good supply. But I now have a Lisa with 80 5.25" disks and a disk drive that uses 3.5" disks due to the upgrade and guess what? I've had an order in for 50 more 3.5" disks since July, but they're not available! It takes twelve disks to backup each of our Profiles. I run one copy every Thursday night. I no longer can keep a grandfather generation backup for obvious reasons. Due to diskettes being erased prior to copying, it's risky doing a backup without a grandfather file.

As time passed and our needs increased, we decided to install Lisa BASIC. I guess some fools just never learn. Upon trying to wade through the documentation that Apple provides, I decided to try the hot line, because my dealer stated they knew nothing about this BASIC and didn't expect to be learning because all attention was being diverted to Macintosh. OK, I thought (until I saw the documentation): if I could read the manual, I could write a system from scratch and not need any support. The 800 phone number gave a couple shots at helping. Results:

1. Our editor has never worked. Maybe it is something I am doing wrong, but no one can suggest anything to try different.

2. I cannot control the printer from within programs. I was given another phone number to call.

Six days later when I got through to the new number, their answer to the first problem was that I should contact our dealer and have a new copy of BASIC installed and the old disks returned. I asked for this twelve days ago and have not heard anything. Do you suppose they care?

Their answer to problem two was that my printer is not covered in the documentation and that it would be easier for them to just jot down the appropriate code and mail it to me. My first thought was to the disks I never received from the 800 number, but I bit my tongue and just agreed. I don't have six days free to dial the phone number continually to try and get through again!

I then asked about the 7/7 upgrade. They said I have to have a coupon from my dealer to send in with the Office System 1 disk and then the whole package is delivered to my doorstep, but without the coupon I need not try. Coupons are supposedly available from the dealer's distribution center and I just have to have my dealer call and request one. Guess what? My dealer doesn't know what a distribution center is!

Our salesman and the BASIC manual said to copy the masters and put them away for safe keeping. Since we have only one diskette drive, I asked if they are copyable to a Profile and then to a blank diskette. His comment: that's a good question. (Not that I have any blank 3.5" disks.) Other questions that no one seems to be able to answer: Did the upgrade correct the

LisaCalc Apple-period problem? If I had to restore the Profile from backups, would BASIC be reloaded? Why are the first five diskettes of the backup showing 74 or less blocks available yet no visible icons? Can I retrieve a BASIC program from a Profile backup?

It has occurred to me to try another local dealer, but apparently the one that handles Lisas locally is the one that I am currently attempting to deal with. Dead end there! My company has purchased upwards of ten Apple computers and numerous printers from one dealer, not to mention all the software and cards. Does this warrant some sort of support or concern from that dealer? I guess I know that answer: NO.

I may only be one employee, one not of management level, one that is not contacted when corporate questions or purchasing policies are reviewed, but when the question of Macintosh purchases is carried around the building, you can bet your bootie this kid is going to try hard to start a protest (riot if necessary) to BUY IBM!

I do not suppose Apple will suffer as a result, but my son just graduated from programming courses at college and I gave him a complete Commodore 64 system. When my daughter became involved with a business in the startup stages, they called to inquire about the systems that I was familiar with. Although I can't tell them what would be best to buy, I sure do know what to steer them away from. I am glad to report that they took my advice.

The saddest part of this whole situation is that this could probably all be resolved within 30 minutes if someone knew the answers or put in an hour looking for them prior to returning my call. If someone out there reads this and knows a place I can contact, I am at 309-764-4344, extension 200.

Sue Gramling, Moline, IL

At least your Lisa has kept your job from being boring! But seriously, we agree many of your complaints are justified. On the other hand, we also think you've made some mistakes. For example, it's wrong to assume everything will go smoothly if you can just find the right telephone support. It's kind of like expecting to learn to drive a car over the phone. Today's computers, even a Lisa, are still just too user-unfriendly for that easy of a solution. Your biggest requirement is finding an informed dealer who can provide you with decent support. Although there might not be any close by, a good far away dealer is still going to be a lot better than a nearby lousy one.

We remember an old user group newsletter describing LisaCalc's capacity as 500 kilobytes; the 7/7 version now provides a menu option showing memory consumption.

A Lisa that crashes as you describe is definitely sick and in need of hardware repairs. Again, you'll need a decent dealer's repair shop to do the work. To save time after a crash, it may be faster to list all your documents chronologically, then move anything changed since the last backup to floppies, and then do a complete restore from backups instead of re-folding. A way to save time and floppies during backups is to do one full backup and then only use nightly incremental ("changes only") backups as long as possible. This method works well under 2.0, often never requiring more than one or two floppies for weeks, but our past issues have reported potential bugs in 7/7 and in the backup of Workshop files.

You really should never have considered installing BASIC. The Workshop environment is designed for experienced programmers, and is

a far cry from the kind of programming environment you'll find on a system like your son's. Don't expect much Workshop support, especially over the phone, unless you're willing to do something like pay a consultant. In fact, we understand Apple has decided to discontinue offering Lisa BASIC.

Masters can be copied to the Profile using the Workshop's file manager (be careful of file name conflicts), but since the master files already have been copied to the Profile during the installation procedure and are backed up along with the rest of your Profile each Thursday, it's probably not really necessary to make copies.

The Apple-period bug has supposedly been fixed since 2.0, but we avoid using it out of habit.

Yes, BASIC is reloaded when you restore from backups. Some backup disks seem blank because they are used for storing various files that do not have a desktop icon counterpart. You can use the Workshop file manager to list or retrieve such files on any disk.

It seems the Lisa is the first computer you've had to deal with. It's obviously been a learning experience that has taught you a lot concerning dealers, backup procedures, documentation, media, and so on. When you approach your next computer, you'll already know about many of the potential problems to look out for. But any computer built today, not just the Lisa, would present those same kinds of frustrating problems to any first-time user. Therefore, be careful and don't assume that using a Commodore or an IBM or anything else would necessarily have been easier. -Editors

Where Does One Go For An Upgrade?

Your issue #14 report on the Lisa 7/7 Office System brings a bit of pain to this Lisa 1 owner who wonders when, or if, he'll ever be able to use that new software.

My dealer in Pasadena states that except for kits to convert his demos, they have never received any Lisa upgrade kits for their customers. I call Cupertino about once each month, and for several months the kits were "about a month away". But, the September call reported "not before November".

Looking through previous issues of *Signal*, it appears that your upgrade kit arrived in March. In your June issue #13, a dealer in Ann Arbor reports that they have upgraded three times as many Lisas as they originally sold.

Am I the only one out here with an orphan Lisa 1? Should I bundle her off to Ann Arbor? Aptos? The Mindanao Trench? There are a lot of us, some irate, judging from the comments of my dealer and the customer service reps in Cupertino.

It would be much appreciated, at least to me, if *Signal* could dedicate a status box to the latest Lisa upgrade kit predictions each month.

Joe Reed, Arcadia, CA

Letters like yours and the one that follows made us do a little checking with Apple. Please read on... -Editors

Soapbox Time For A Lisa User

I would like to offer some praise, and some regrettable criticism, of Apple and its new 32-bit technology:

To begin with, after nearly six years of personal computer ownership, my Lisa is the first machine that does the things for which I originally bought a computer. It expands my capacity to create, which is more important than simply increasing my

productivity. With LisaDraw, and to a lesser degree LisaProject, I can accomplish tasks with the Lisa which were not possible on the IBM PC, the TRS-80 Model 12, the Commodore 8032, or any other small computer I have used.

On the other hand, I remain consistently frustrated by Apple's refusal to take the Lisa seriously. Why is it taking so long to get my 7/7 upgrade? Why don't they use an 8 megahertz, or even a 12 megahertz 68000 chip to improve the machine's speed? Why can't LisaTerminal autoanswer? Why is LisaList so miserably poor? Why has AppleBus taken so long to deliver? (Two Lisas in our building are linked by their serial ports and swap information daily. Inter-machine communication should not be so tough to implement.)

I read in an issue of *ST. Mac* that Apple may be withdrawing support for the Lisa and, in particular, the Office System. Your own publication talks about the lack of Apple support for the Toolkit and the Workshop. Are they crazy? My dealer tells me that Lisa production now lags behind sales by a 2-1 margin and that Lisa 2/10 sales are far above the wildest predictions. It seems insanely stupid to ignore the potential for improving the desktop environment.

In short, when will Apple realize that the market has caught up with their machine? Today, a Lisa 2/10 with 7/7 is highly competitive in price and far superior in performance when compared with a PC/AT with integrated software. Apple ought to exploit this situation. Instead, it keeps talking about the vaporware available for the Macintosh. And in the meantime, those of us who bought "the world's most powerful personal computer" get shortchanged because third party developers refuse to tread where the manufacturer fears to lead.

Thanks for the soapbox.

Ralph J. Megna, Little Rock, AR

Our own best guess is that Apple has decided that, although it can continue selling both the Lisa and the Macintosh, it can only afford to continue improving and developing one of them, and the Mac wins simply because of its tremendous success in the market, regardless of whether or not Lisa is really the world's most powerful personal computer. (While it might be the most powerful, it certainly hasn't been the most popular, although we think that's been primarily an Apple marketing problem, and certainly not the fault of the Lisa software and hardware.) We expect Lisa to essentially stay frozen from now on, while it simply waits for the Macintosh to evolve into something powerful enough to make the Lisa obsolete, although we agree with local dealer Lori Duerr who forsees a bit of a wait until the Mac has complete Lisa-style capabilities like huge disks, print queueing, and simultaneous multiple application windows. Maybe next year?

*In the meantime, the circumstantial evidence that has piled up certainly doesn't make Lisa's future look bright: developers aren't generating much software, the Lisa isn't being advertised, and so on. (Don't forget our own "Mac Success Freezes Lisa" story way back in April's *Signal* #11.) Real eyebrow raisers were a rumor in the September 24th issue of *Computer Retail News* predicting the demise of the Lisa line in the first half of 1985 and an even more detailed story titled "Dealers Anticipate Phaseout Of Lisa" in the subsequent October 1st issue. We asked Apple about these rumors and our own questions concerning the future of Lisa. Their response follows... -Editors*

A Lisa Status Report From Apple

I would like to respond to your inquiries regarding Lisa and the article in the October 1st issue of *Computer Retail News*. I feel that the quotes attributed to Apple personnel may have been misinterpreted, and should be considered in the context of our recent actions:

We have just made a substantial investment in a building in Dallas devoted entirely to Lisa production.

The production line boasts increased efficiency, yields, and reliability, and is helping us meet the backlog on Lisa 2/10 systems and upgrades. In fact, all 2/10 upgrades should be complete by the middle of November. The reason for upgrade delays has been the overwhelming demand for them, and our limited capacity in the previous months. As of October 12th, we have built a 2/5 upgrade for every Lisa 1 ever built! 2/5 upgrades should all be delivered by the end of October.

Lisa shipments continue to be strong. Last month, we shipped more 2/10's than ever, produced by our new 2/10 production line. We are still seeing demand for Lisa 2 and 2/5, but that demand has been reduced by the introduction of the Macintosh 512K. We will continue to meet the demand for Lisa 2 and 2/5, but we will focus our capacity on the Lisa 2/10.

Lisa is an integral part of our office strategy. We absolutely cannot afford not to have a hard-disk based workstation in the office. The demand for hard-disk based systems remains strong, and Lisa is there to fill that demand, with its unparalleled user interface.

We will continue to refine Lisa 7/7, in light of customer inputs regarding bugs in the software, and we will continue to work on ways of linking Lisa and Macintosh software.

I hope these conditions and actions show to you our commitment to Lisa. We will in the coming months reinforce that commitment to our salesforce and our dealers.

Timothy J. McNally,
Lisa Product Manager,
Cupertino, CA

Pneu-Mouse Plot-Making It?

I have been a subscriber from the beginning and enjoy your input/output. However, you and your readers should be aware that all advertisers do not uphold their promises.

Pneu-Mouse has made great promises but does not deliver. I made an order June 11th, the check was cashed June 19th, and I have not heard from them since. I have called many times and even written, but to no avail. Oh well, caveat emptor.

Richard T. Shamley, Casper, WY

In checking up on your complaint, we've made a lot of calls and listened to a lot of stories, but the bottom line is that Kenn Pierce of Pneu-Mouse has promised us he'll send you an immediate refund. Although we think there's no excuse for prematurely cashing your check, Pneu-Mouse apparently ran into a number of production problems that delayed the product. They say they are indeed now shipping. Let us know how it turns out for you.

-Editors

Two Prototype Pokers Arrive

Our issue number #15 gave a Thumbs Up to the Mac-Jack blackjack game for the Macintosh from DataPak Software Inc., 14755 Ventura Blvd. #1-774, Sherman Oaks, CA 91403. Perhaps buoyed

by that success, the company sent us a preliminary version of their new \$39.95 suggested retail Mac-Poker, which lets you play five card draw against the house.

Although this game is styled very much like Mac-Jack, we're going to have to give Mac-Poker a Thumbs Down. The program simply has too many poorly designed features that make it awkward and boring to play.

For example, a major problem is that your cards always appear face down unless you keep the mouse button depressed while the pointer is on a box labeled PEEK! Is that to prevent the Macintosh from seeing our cards? PEEKing never displays more than a corner of each card, anyway. All it really does is force us to memorize card positions (in an unsorted hand!), because we can't even discard until we release the PEEK box and the cards are face down again! Didn't someone actually try to play this game after it was designed? The vendor should have at least tested it on one user before releasing it.

A number of other awkward features make Mac-Poker difficult to enjoy. The shuffling and dealing before every hand are just too slow to wait for. The eights, aces and queens are hard to read and discern. Although it may model real life, it's no fun to never get to see what the opponent folds with, so you're never sure how successful your bluffing may really be. One incredibly frustrating problem is that you must count thin coins to select just the right amount to match an existing bet. Grab too many, and you've succeeded in raising. Unfortunately, the house then seems to almost always counter-raise, and then you're back to counting coins to try to meet the new bet. It would be much better for Mac-Poker to have some quick and simple way to let the player exactly match a bet.

It wasn't surprising to find we quickly tired of playing Mac-Poker. It's just too hard to operate, and when you're only playing against one other hand, it seems to take forever before any really interesting cards come up (as opposed to blackjack, where almost every hand seems critical).

Fortunately, a good poker game finally did arrive when we received a preliminary copy of Real Poker from Henderson Associates, 980 Henderson Ave., Sunnyvale, CA 94086. For \$39.95 suggested retail, you get a version of pot-limit poker that indeed lives up to its name of being just like the real thing.

After pressing on the saloon doors that are displayed after booting, and editing or selecting a name off the scoreboard, you become part of a six-hand game against opponents like Wild Bill, Black Bart, Shady Sadie, Mad Max and One-Arm Joe. The deal moves around the table with each hand, and is lightning fast. A menu option allows the card animation to be suppressed if you're in a real hurry to lose your money.

When necessary, a separate window opens to allow you to indicate discard options. Hands are displayed sorted, and the machine provides default discard guesses for you that are almost always correct, so you just have to click on an OK box most of the time. A special "teach" mode is also available that reveals the opponents' cards and lets you single-step through every move in the game, since its normal and high-speed modes may be too fast for beginning players. Teach mode also gives you a good chance to determine the built-in strategies of your opponents.

We did notice a few things that could be improved. The quality of the music that appears with the saloon doors and when the player

wins or loses leaves much to be desired. Fortunately, a menu option allows the sound to be turned off. The action in normal mode might also be just a tad too fast. Instead of being able to follow all the discards and bets by opponents, the action tends to whip right by, and you must then examine each opponent's window and comments to deduce what has taken place. Also, multiple copies are displayed of a few of the boxes that must be clicked on from time to time, apparently to make it easier to hit one, but the redundant extras just tend to distract, confuse, and clutter up the screen.

Despite those minor rough spots, Real Poker's speed, along with the five opponents, insure that there's always plenty of action. At one point we won \$42,522 on a full house. A little later we bluffed our way to a \$124,548 pot with a pair of jacks! Overall, the game is well designed and a lot of fun to play, so we give it a Thumbs Up without hesitation.

Subscriber Interests And Activities

Terry Donohue, Alexandria, VA:

We use Macs at work for graphics, slides, even camera-ready scientific papers. I am very interested in fonts, now having acquired 26 different ones for the Macintosh.

Steve Wilson, San Francisco, CA: We teach computer graphics at San Francisco State University with the Macintosh.

W. D. Brennan, Hopkinton, MA: I use Mac mostly for job-related things, although all our household correspondence now goes out via MacWrite (often enhanced by MacPaint).

Kenneth Kay, Orland Park, IL: I carry my Macintosh to work daily, a 90 mile round trip to a nuclear power station construction site. I use it to calculate engineering equations using Multiplan. MacWrite and MacPaint are used to create calculation template forms. At home the Macintosh is a much fought-over machine among my three kids. MacWrite is used to teach them word processing and writing style, while MacPaint lets them draw and draw without generating piles of scrap paper.

Darwin L. Hayes, Springfield, UT: I have found that the Macintosh is totally adequate for writing short articles for my school work and for publication. I am hoping to learn enough to write a grammar text that will be suitable for use in the schools and for training teachers.

Dermot McDonnell, Galway, Ireland: I am working as a computer software engineer, although my qualification is a degree in applied physics. I have just started using a Lisa 2/10 under Santa Cruz Operation's Xenix. A Mac is my personal property for use at home. I write software for business use and small manufacturing operations as well as software for interfacing to equipment for measurement or control.

Michael Arenson, Santa Cruz, CA: We are setting up a microcomputer lab for the new Business Economics major here at the University of California Santa Cruz, and are equipping the lab with IBM-XT's and Apple Macs, as well as purchasing a Lisa for software development.

Frank Kral, North Brunswick, NJ: We are evaluating Macintosh computers for laboratory automation at Johnson & Johnson Products Inc. If successful, they will replace obsolete (slow) Tektronix 4051/4052 computers and become part of an AppleNet distributed data

processing network. The Mac will be interfaced to instrumentation via RS232. All software presently used for data collection, data reduction, graphing and reporting was developed in-house using BASIC and some ROM-based assembly routines. Software for Mac will be developed (transcribed) by us into MacForth or MacPascal.

Received, But Not Yet Reviewed

IBM PC BASIC compiler for the Lisa, from Pterodactyl Software, Box 538, Fairfax, CA 94930.

Mac the Knife, MacPaint clip art from Miles Computing Inc., 7136 Haskell Ave. #300, Van Nuys, CA 91406.

Profit Projections/Breakeven Analysis management tool for the Macintosh, from Harris Technical Systems Inc., Box 80837, Lincoln, NE 68501.

Clip 1, MacPaint clip art from Frazier Peper & Assoc., Box 3019, Santa Cruz, CA 95063.

Frogger, an arcade-style game for the Macintosh, from Sierra On-Line Inc., Box 485, Coarsegold, CA 93614.

MacManager, a business and management simulation game for the Macintosh, from Harvard Associates Inc., 260 Beacon St., Somerville, MA 02143.

MacNews, a periodic collection of Macintosh product descriptions and reviews, from 110 Baldwin St., Fall River, MA 02720.

MacCHECK, cash disbursements for the Macintosh, from Innovative Software, 4909 Stockdale Hwy. #169, Bakersfield, CA 93309.

1stBase, a relational database system for the Macintosh, from DeskTop Software Corp., 228 Alexander St., Princeton, NJ 08540.

PC to Mac and Back!, a utility to transfer files between an IBM PC and a Macintosh, from dilithium Press Ltd., 8285 SW Nimbus #151, Beaverton, OR 97005.

Signal #16
September 1984

Priam's DataTower Arrives

Not long after our *Signal* #13 story about Priam Whamos was published, we got a call from Bill North at Priam, who asked if we would like to find out more about their 86MB disk for the Lisa. The unit is called a DataTower, features a built-in 1/4" tape drive for backup, and is being retailed to the Lisa market as the MassFile by Tecmar. Negotiations began, and phone calls and letters started to wander back and forth between Priam and Semaphore.

Last week, three boxes totaling 110 pounds arrived from San Jose. It was the DataTower. We hate to open a delivery until we're ready to write about it (or at least take good notes), otherwise we might forget some of those interesting first impressions. And, while this copy of *Signal* was still going through rework at the time (and could easily handle a few last minute changes), we couldn't possibly finish a comprehensive review of the DataTower and include it in the issue. So there was obviously no reason to open the shipment just yet. On the other hand, not opening a newly arrived product is like putting off opening Christmas packages even though it's December 25th. It didn't take long before we reached a compromise: we'd open

the shipment, spend just half a day or so checking it out, report on just that much, and then do the rest of the investigation (or at least enough to look like we're making progress) when the next issue rolls around.

We opened the first of the two small boxes and found a blank 1/4" tape cartridge, a power cord, a head cleaning kit, and a photocopy of a 180-page preliminary product specification (slightly too thick for its single staple). The second small box held another blank cartridge, an interface card designed to plug into a Lisa, and a cable to connect the card to the DataTower. The third box held the DataTower itself, contained in a 7" wide, 26" tall and 20" deep metal cabinet that's just right for standing alongside a desk. Unpacking dropped the unit's weight down to about 80 pounds.

It only took us about ten minutes to install everything. The product specification that was included is really engineering documentation designed for programmer types who need to worry about interfacing and writing drivers and all of those esoteric subjects. It doesn't really try to be end user documentation describing how to simply make the unit operate with a Lisa. So we just got out our old Apple documentation on installing a Lisa two-port card, followed all the pictures and went through all the installation steps (but with the Priam card), attached the cable, and powered everything on.

The Lisa we used was an original model that was upgraded to a 2/5, but which still has old ROMs so that the Startup Menu shows two twiggly slots. With the Priam's interface card installed, we were expecting to now find another printed circuit board icon in the Startup Menu. Instead, the menu included an actual little DataTower icon! Those ROMs aren't so old, after all...

We quickly installed a 3.0 Office System on the new disk, and we were off and running. Now Attributes shows 142,420 blocks for our disk device.

One way to think of the DataTower is as something like another Profile, except that it's a lot bigger and faster. Unfortunately, it's noisier too, just enough noisier to be a bit too loud for a nice, calm office environment. Naturally, it's also more expensive. At \$8,995 suggested retail, the cost per megabyte is a lot less than on a Profile (and you get the built-in tape drive, too).

Backing up the DataTower is a lot simpler than backing up a Profile, at least in the sense of not requiring a couple of boxes of floppies and lots of operator attention. By duplicating the disk icon, you can start copying the disk to the cartridge tape. So far, we've tried this once and soon realized that 3.0 copies the entire disk image to tape, regardless of how many files are actually stored on the disk, so we canceled the operation once it asked us to insert tape cartridge number two. We'll try a complete save again when we have a bit more time, and let you know how it goes.

We've also started work on an interesting little project that will try to fully exercise the DataTower in a special way. Stay tuned for more details.

This Month's Mailbag

T/Maker Reviews Our Review

We guess you didn't exactly love our ClickArt Personal Graphics for the Macintosh. [See Signal #15.]

Though you question the quality of our images, in all honesty we have yet to see better images in any other collection. (We're still astounded

when we look at Einstein or David and realize they were hand-drawn with the mouse.) As we have four different artists represented, the styles do vary (which is why Mondale looked so different from the rest).

Actually, we agree with a few of the points made in the review. The documentation should have contained a printout of all the images. The images are not all that useful or organized for standard business applications.

But, in all honesty, we didn't want utility to be ClickArt's primary attribute. We wanted it to be fun. We figured people would enjoy a collection of interesting topical images to play with on their Macs. We believe this is the way most of our buyers have perceived ClickArt. We seem to have very few unhappy customers, and about 8,000 satisfied ones.

In any event, our second ClickArt product is out, and we have bravely enclosed it in the hopes that it will be better received than the first. Called ClickArt:Publications, this one contains practical images, headlines, alphabets and layout guides to aid people in creating newsletters, flyers and announcements. You can see all the images it contains on the enclosed instruction sheet. A comprehensive *Tips Manual* is not only included in this product, it is also being sent free to all previous ClickArt owners who returned their registration card.

We hope you like this one better than the last. We look forward with trepidation to your review.

Robert Simon and Heidi Roizen,
T/Maker Company,
Mountain View, CA

Einstein and David were great. That artist should have done the whole disk. We'll definitely give your new product a complete review in a future issue. For now you can probably relax, because our sneak peek at the instruction sheet you sent indeed indicates ClickArt:Publications is a much better collection. -Editors

A Reader Abandons 3.0

Recently, I received a 2/10 upgrade for my Lisa with the new 7/7 operating system included. After using the new Office System for several hours, I must say that I do not at all share the positive tone reported in your *Signal #14* article, and I would definitely not recommend that Lisa owners rush out to purchase this new package without first giving it very careful consideration.

A bug has been introduced in LisaDraw 3.0 that makes it impossible to print gray lines as in previous versions. In eliminating the line shade selection and replacing it with a pen pattern, it is now necessary to select a gray fill pen pattern (second up from black) to produce the dotted line effect of gray lines. Although this appears identical on the video screen to previous LisaDraw gray lines, it is now printed as a fuzzy black line. Over the last eight months, I have produced hundreds of drawings, many using gray lines to denote hidden lines, projections, or for various half-tone effects. Under 3.0, none of these drawings can be printed correctly.

In discussing the problem with two Apple officials over the toll-free Lisa support line (which is often not answered), they conceded that this is a bug, that there is no way to get around it, and that a corrected version of the software may not be available for as long as one year.

Beyond this LisaDraw bug, I did some benchmarking to compare the 2.0 Office System and LisaDraw against 7/7 and 3.0 LisaDraw. A cold power-up is 13% slower under

3.0, going from the desktop to the Environments window is 3% slower, restarting from Environments is 28% slower, opening Preferences is 115% slower, opening a LisaDraw file is 15% slower the first time and 21% slower the second, duplicating the file is 7% slower, redisplaying a full LisaDraw screen is 73% slower, and selecting all objects and moving slightly is 146% slower. Opening the clock is 28% faster, and closing a LisaDraw file is 11% faster.

The LisaDrawing I used would be considered of moderate size, and contains over 100 objects. I have also found that printing with 3.0 can be up to 50% slower.

While several very advantageous new features have been added to the 7/7 desktop and the 3.0 tools, the LisaDraw bug described, and the incredible delays in execution, make 7/7 completely unacceptable to me. I would have been particularly irked had I paid \$150 for just the software upgrade, submitted my old 2.0 diskettes, and irreversibly converted all of my old drawings to the 3.0 tool format. As it is, I have abandoned 7/7 and its new tools, and am back to 2.0 for the foreseeable future.

Christopher E. Strangio,
Arlington, MA

Ken Silverman of Santa Clara, CA has told us that 3.0 also does not always print overlapping objects correctly on a daisy wheel printer. We have thought of a possible (although awkward) way around your bug, but it's only really useful when creating new 3.0 shapes. To get a gray border, draw your required shape with the usual fill pattern and a pen pattern of None. Then create a slightly larger duplicate shape with a gray fill pattern, again using a pen pattern of None. Send the gray shape to the background, center it behind the filled shape, and if the gray object is just the right size, you'll get the effect of a gray border around the foreground object. The non-existent pen capability of 3.0 is what avoids the white border lines that appear when 2.0 tries this technique. Another possible crutch is to use some other pen pattern similar to gray.

As for the speed of 3.0, we really never noticed a difference, but your timings immediately prompted us to make some tests of our own. We found a cold power-up or a restart from Environments to be only 2% slower, and opening Preferences 5% slower. Going from the desktop to Environments speeded up by 32%, opening the clock improved by 9%, tearing off LisaDraw stationery improved by 82%, opening blank LisaDraw stationery improved by 19%, and saving and putting away blank stationery improved by 29%.

You used a 2/10 for both your 2.0 and 3.0 tests. In our case, we used a 2/5 running 2.0 and the Priam DataTower described in this issue's lead story for the 3.0 results. We made some interesting discoveries. First of all, it's surprisingly difficult to get exactly the same timing twice. It isn't easy depressing a stopwatch button and the Lisa power button at exactly the same moment. The accuracy of some of the short tests is very questionable.

Also, Lisa benchmark tests need to be specified to a fine level of detail. For example, are Opens and Closes done from the pull-down menu or by double clicking? Is the memory test brief or thorough? Do we go to the Environments Window immediately after powering up? The speed of many Lisa operations depends on file counts and other leftovers of past activity. For example, powering off or going to the Environments Window is much quicker when done immediately after

powering on, as opposed to after doing lots of file manipulation. We found some amazing differences between our 2/5 2.0 results and your 2/10 2.0 results: the discrepancy is far larger than either result compared to 7/7. More tests, tightly defined and controlled, definitely need to be done to explain what's really going on.

In any case, we're not really bothered by slow 3.0 operations, because we're willing to trade them off for the extra capabilities. (We realize your existing investment in 2.0 files makes it tough to convert.) Sure, opening Preferences may take more than twice as long now, but Preferences is also a larger and more complicated program now, and we don't open it that often, anyway. Sure, opening a LisaDrawing may be 15% slower now, but that's only an extra ten seconds, which might easily be recovered the first time we use Reduce To Fit and move an object from one end of the document to the other, in a single step that the old LisaDraw can't match. Sure, LisaWrite might be slower now, but who wants to look up words in the dictionary? Similar arguments hold for the new Desk menu, for being able to queue multiple documents for printing, for having more text sizes, for being able to rotate drawings, and so on. Although a single given operation might be slower under 3.0, in the long run we expect to save time and be much more productive. -Editors

Perhaps 7/7 Isn't A Whole

I read with interest your discussion of Lisa 7/7 software in *Signal #14*. I agree that 7/7 represents a major step forward. Apple has done an excellent job of improving 2.0 and of adding some nice new features.

I agree with you that the new manuals are nicer than the old ones, even though I like the originals for their consistency and graphics and lack of errors. There are a few typos and omissions in the new books.

Your suggested approach of having printer icons into which we could just deposit document icons is excellent. It would seem to be a natural for the desktop analogy. I wonder why Apple elected not to do it that way?

A new addition to LisaWrite helps save time: the software is aware of documents that have not been modified after having been opened. It can then put them away quickly when asked to do a save.

LisaDraw was already, for me, about the best of the applications in many ways. The new improvements make it even better. I wish LisaWrite could be as fast as LisaDraw. The Reduce To Fit function was essential for LisaGraph and is now proving to be very productive in LisaDraw. Something similar would be valuable in LisaWrite.

I really like 7/7 but it does have several nagging problems. Let me give you some examples, but please keep in mind that overall I find my Lisa productive and useful and fun.

1. The LisaWrite spelling program is good in many ways. It is amazingly fast, it has well-designed functional versatility, and it often finds the right spelling for unusual errors like "neemonic" or "rath". But there are some misspelled words it has a hard time with, like "reath" and "bisness". There are also lots of words not included in the dictionary. Some that I have added so far include: pixel, desktop, debounce, bulletproof, alphanumeric, makeup, outperform, outperformed, decodable, undecodable, incrementally, recalibrate, hereunder, reload, reloading, abstemious, impecunious, incalcescent, backup, electromechanical, absterge,

decompress, swappable, xylograph, plenum, technologies, metastable, fictile, fanfold, misspelled (!). This tells me that I can look forward to inserting a lot of words on my own. I think users will need to keep documents containing their own personal dictionaries, for backup reasons as well as for swapping in and out of the dictionary when necessary. By the way, the speller only puts a word in the personal dictionary once. If the user happens to enter the same word again, it is ignored.

2. The documentation says that the Attributes selection in the File/Print menu indicates page counts, but the software in fact does not do so. This becomes a more than trivial issue because Apple has eliminated page counts from the printer dialog boxes. It appears that for documents without page numbering, the only way to know the page count of a document that has just been reformatted, for example, is to Insert Page Number, scroll to the end, check the page count, and then eliminate the page number. Attributes is a great addition, but it only works on folders, disks and closed documents. It is not available for an open document. I would think that would be one place where Attributes would be nice. Why would Apple leave it out?

3. The changes-only backup does not seem to work. I suggest that users keep their own documents-only backup in addition to the full backup that Lisa performs.

4. LisaList, LisaDraw and LisaCalc all now cause the printer, with fanfold paper, to emit an empty page before beginning to print a document! (LisaDraw only does this on some documents.) One way around this problem is to select the Single Sheet option in the Print dialog box. This causes some awkward extra dialog boxes to appear during printing, but it does save paper. For long documents it will usually be better to just accept the extra blank paper as calmly as possible.

5. The new ability of 7/7 to queue multiple printing jobs is good, though overdue. But in the Monitor the Printer dialog box there is no way to abort the active print job without also dumping all printing tasks that may be pending. Instead of one dialog button to kill printing, it would have been nice if Apple had put in four buttons: (a) delete the current job only, (b) delete all jobs pending, (c) pause printing, and (d) resume printing.

6. When the Lisa hard disk is shared with Macintosh programs, it really does act like a separate disk. Even when completely erasing the Lisa disk, the Macintosh portion is not touched. On the other hand, it takes a power-down plus the insertion of two boot disks during a power-up to get to the Macintosh documents on the hard disk. MacWorks should be an option in the Environments window or an icon on the desktop.

7. I can't paste from LisaWrite into LisaList in the way the manual indicates. Something seems wrong about the way LisaList treats Return characters.

8. I suggest that users not try to use the diskette duplicating routine. It does not work, at least with some disks. Just duplicate the documents instead.

It will be interesting to see how Apple resolves these issues. None of these items should deter a typical user from upgrading to 7/7. I think the advantages far outweigh the problems.

Joe Kroeger, Sunnyvale, CA

The more we think about printer icons, the more we realize how tricky such an operator interface can

be. (It's easy to come up with a one-sentence idea, only to find that working out all the details becomes an enormous job.) Perhaps Apple ran into some of the same design problems that have since occurred to us.

For example, would you require the user to make a duplicate of a document before moving it to the printer icon? After all, shouldn't a printer icon irreversibly swallow a document, kind of like a black hole folder? Or would the printer icon spit the document icon back out onto the desktop so the user isn't required to make a duplicate? In either case, the techniques are completely different from any current desktop operation. Also notice how a printer icon would have to correctly interpret and print any type of document, even if the document's application window is not open. (It's interesting to see how the Macintosh is different from the Lisa in these types of operations. On the Mac, moving a document to a non-folder icon implies making a copy, not moving the original. The Macintosh Finder is also capable of letting any selection of documents invoke their application windows and start to print, right from the desktop.)

Your observation about LisaWrite quickly closing files reminds us of a test we made during our original visit to Apple to see 7/7: we opened and then immediately closed a LisaDrawing without making any changes, only to find that the document still had its modification date and time updated. That's too bad, because it means that any document inspected or printed gets tagged for the next incremental disk backup, even if its contents didn't really change. (A way to avoid this is to make a duplicate, inspect or print it instead of the original, and then trash the duplicate.)

To us, LisaWrite's speed already seems fairly comparable to LisaDraw's, assuming a typical LisaWrite document probably has to handle many more bytes of data than in an average LisaDrawing. At least LisaWrite 3.0 seems definitely faster than the 2.0 version.

As for spelling error correction, that's much harder than spelling error detection, so we aren't too disappointed when LisaWrite isn't always able to make a correct guess. You obviously have an extensive "professional" vocabulary. Looks like a chemist or lawyer or just about any professional is going to find a lot of missing words. Perhaps there'll be a market for LisaWrite dictionary extensions for medicine, physics, architecture, and so on.

Notice how the Attributes selection is like Get Info on the Macintosh? Macintosh doesn't provide Get Info on an open document, either.

As for counting pages, 3.0 might be awkward, but remember that 2.0 really didn't indicate page counts until after a document was sent to the printer. Wouldn't it be nice if you could just select jobs for deletion from the print queue with the mouse?

We really like your idea of making MacWorks an icon or at least an Environments entry. Keep those wishes coming. -Editors

Is Anyone MacWorking?

I thought I would drop you a line along with the application for my free subscription renewal. (That seems a bit odd, a free renewal.) I find myself looking forward each month to receiving Signal. I'm especially interested in information on the Lisa running MacWorks. It seems to be an area which is not frequently commented on.

Russell Pringle, San Diego, CA

We usually get four or five address corrections a day, and most of them from the Post Office, not our readers. Although we're free, requiring subscribers to periodically renew is the only foolproof way we can be sure a given address is still worth mailing to.

Now that MacWorks will support Lisa disks, and now that more Macintosh software is out, we'll probably see more MacWorks users. Until fairly recently, there wasn't a whole lot the Macintosh could do that the Lisa couldn't duplicate with its own software. We're also fortunate enough to have both machines here at the office, so we probably tend to ignore MacWorks since we already have the best of both worlds. -Editors

What's New With Microsoft BASIC 1.01

Microsoft Corporation has released a revised Macintosh BASIC interpreter. The new master disk contains a dumb-terminal program that makes good use of the graphics calls available within BASIC. The mouse is used to select the baud rate, data bits and other parameters from a menu. The program does not allow you to upload or download files. It does allow transmission at up to 9600 baud.

Documentation supplied with the disk consists of a set of pages stapled together and includes a page describing enhancements, a page describing corrections to existing problems, three pages of answers to commonly asked questions, three pages of corrections to earlier documentation errata (mainly typographical errors), thirteen pages on the Toolbox reprinted from an article in *Macworld*, and five pages of short programs by Microsoft to illustrate how to use the graphics functions and file procedures.

Problems that have been corrected include: SAVEing to and LOADing from another disk, keeping files in their folders after opening, and SAVE not saving all of a program if another selection was made from the pull-down menu before SAVE was finished. The corrections seem to work properly. Files stay within folders as they should, creation dates don't change with modification dates, and LIST and RUN will not be appended to the end of a program line anymore.

The correction to the LLIST and LPRINT problem of print buffer overflow is listed under "enhancements", as is a correction to make circles look like circles and not ovals on a Lisa under MacWorks. Has Microsoft grown so large they don't have to admit they made mistakes? They even have the terminal program listed under "enhancements". The only real enhancements are an ability to move files between MacWrite and BASIC and a speeding up of the SQR function.

Anyone who sends their master disk to Microsoft will receive the new version free of charge. They say to expect two to three weeks for processing, but don't be surprised at four weeks or more. If you haven't yet received a return authorization number from Microsoft, contact them at Kamber Business Park, 13221 S.E. 26th St., Bellevue, WA 98005.

Norman Thorsen, Poulsbo, WA

We've heard rumors that the future 2.0 version of Microsoft BASIC for the Macintosh (now at beta sites) is a major improvement, and that it will allow much better access to various Mac-style features like pull-down menus, windows, scrolling, and so on. -Editors

Circle Constructors Wanted

In using LisaDraw as a poor man's CAD system, I have found

that it is seemingly impossible to draw isometric circles (ellipses tilted with respect to vertical). I have only been able to construct them freehand, and attempts to "smooth" them are usually unsuccessful. Have I missed the boat or is there another way?

Bob Ziller, Brea, CA

In some cases, we seem to be able to get reasonable approximations by simply drawing an oval and then squeezing one or both side handles with Auto-Grid off. But if your requirement is essentially for ellipses with axes that are not on the horizontal and vertical, then you're right, it's tough. The best we've been able to do in that case is try to approximate the curve with a series of arcs, but the results leave much to be desired. Arbitrary rotation of LisaDraw objects would be a nice solution. -Editors

Apple's Experts Notice Our Typography

I ran across *Signal* at Apple and was pleased to see you were utilizing the Lisa software so well for typesetting, though I did wonder why you were not using the latest release of the Office System. Then I took a closer look and realized the output was off a Compugraphic typesetter, and that only runs on 2.0 software. Ah, well! I do hope that Compugraphic will upgrade soon. The typefaces on 3.0 are much nicer and would be useful to you in your publication. You may ask how I know this, and you may think I am beating my own drum to say it, but the truth is I was the major designer of the Lisa typefaces and icons. The typefaces were all redesigned for the latest 3.0 release of the software. The point system is now used in the menus, a fourteen point size was added. Modern looks more like a sans serif font we all love, and the spacing of all the fonts is improved tremendously.

Annette Wagner, Sunnyvale, CA

We mentioned some of those new features in our 7/7 review in issue #14. We've heard that Compugraphic plans to eventually support a huge family of typefaces under 7/7. -Editors

Congratulations for your good use of Lisa typesetting. By the way, I wrote the Imagewriter code, and I have brought the Lisa fonts onto the Mac and find them of slightly higher quality than Mac's fonts for high resolution printing. I use the Lisa fonts developed for the Canon color printer for the low point sizes (9, 10, 12) and the Lisa high resolution Imagewriter fonts for the higher sizes (18, 20, 24). The 20 point size is not available for low resolution and will not appear on the point size menu, however it can be used for 10 point high resolution.

Owen Densmore, Cupertino, CA

Is there any chance of convincing Apple to release those Lisa fonts to users in the form of Macintosh Font Mover files? -Editors

This Time LisaWrite Fooled Us

On page 6 of *Signal* #11, you wrote that the Workshop conversion trick mentioned in *Signal* #3 no longer seems to fool LisaWrite.

I can't figure out why you said that, as it still works fine on my machine.

Bill Starbuck, Milwaukee, WI

Your letter made us decide to give it one more try. You're right, it still works! We changed the name of a Workshop text file to {D999T1}, repaired the disk, and

LisaWrite could then open it. We could have sworn it failed to work when we first tried it with 2.0, but somehow we must have goofed. Let's see now, will 3.0 work?
-Editors

Templates Wanted

Do you know of anyone who has a product similar to the old VisiCalc Real Estate Templates for Lisa?
Les Herman, Charleston, SC

More Notes On Tecmar's Drive

Our previous issue reported a problem with "insufficient memory" when we tried to move fonts into the System file while using Tecmar's hard disk for the Macintosh. Since then, we received a call from Thomas Wooded, a dealer in Rockledge, Florida. He had run into the same problem but discovered he could get the Font Mover to work by making sure the window for the Tecmar disk included only the Font Mover icon and a single folder (into which all other files and folders were placed).

Unfortunately, this trick doesn't seem to work on our machine. The Font Mover happily removes fonts from the System file, but try as we might, we still can't move any fonts back in. Has anyone else discovered a fix?

We also received a call from Sam Miller, the Tecmar engineer who designed Mac Drive's hardware, responding to our concern about having to rely on Tecmar for modified files. Sam let us know that only the System file itself has been modified for supporting their disk. The Finder file is identical to the one distributed by Apple.

Mouse Stampede Gets Thumbs Up

Mark of the Unicorn (222 3rd St., Cambridge, MA 02142) has sent us their Mouse Stampede game for the Macintosh. A cover letter indicated \$39.95 is the suggested retail price.

The packaging is the slickest we've seen yet for a Macintosh product, and looks very much like a record album. The vendor gets points for providing an actual photo of the game on the back cover of the package, so customers can see exactly what they're buying. The single disk that's provided is copy protected.

Mouse Stampede is a shoot-em-up with a theme very similar to the well known Centipede arcade game. It's fast paced, with a lot of action and plenty of targets: rampaging mice, wandering turtles, falling shopping carts, flying bats, stomping sneakers, buzzing flies, slashing knives, wandering paint brushes, sleeping cats and three kinds of cheese. The graphics are great, and the game has lots of music and distracting sound effects just loud enough to be able to drive parents crazy. A scoreboard keeps track of the top ten exterminators. One or two players are allowed, and there's also an automatic demo mode that makes the game an interesting attraction for store displays.

We noticed a few things we would like to change. A dialog box allows the sound to be turned off, but a volume control would have been much better, since the sound effects are half the game's appeal. Instead of smoothly gliding across the screen (like the player's icon), all of the targets move in discrete little jumps, which seems crude and a bit frustrating when you're trying to line up a shot. Occasionally, the screen is so crowded with action (especially when lots of cats are awake) that we notice the machine bogs down slightly. And one confusing feature is the option to

pick a starting score. What's the point of that?

Despite these deficiencies, Mouse Stampede is the best action game for the Macintosh that we've seen so far. Our main requirement for game software is that the program should be fun to play. Mouse Stampede clearly meets that criterion, and we definitely give it our Thumbs Up recommendation.

Subscriber Interests And Activities

Rich Powers, Federal Way, WA:

I am currently editor of a new newsletter for the Seattle Robotics Society here in the Puget Sound. Of course I am using the mighty Mac to format it.

William J. McCarty, El Toro, CA:

I own a Lisa, and use it as a personal work station in my position as Manager of Research and Development at a company in Garden Grove. I find application for all of the Office System tools. LisaTerminal has been especially useful for me by allowing convenient exchange of data between two in-house computers (a PDP/11 and a Harris 700), and to communicate with various corporate mainframes located throughout the country. I also apply LisaPascal extensively for engineering and scientific calculations.

P. Lau, University of Western

Australia: We are developing structural engineering software on Lisa.

Mark S. Provinsal, West

Germany: My family is part of the military community stationed overseas and I am very much cut off from the computer world in the United States. I write software for European companies and have been a computer enthusiast since 1979. I have recently purchased a Macintosh and am trying to develop software but I have no technical support at all. I am still very much in the dark as to user ROM routines. I would like to contact other Mac users and hopefully even exchange ideas.
[Write to the Nuernberg American High School, APO NY 09696.]

Received, But Not Yet Reviewed

Klondike solitaire for the Macintosh, from Computing Capabilities Corp., 465-A Fairchild Dr. #122, Mountain View, CA 94043.

Softspot, a magazine on disk for the Macintosh, from Softspot Magazine, 1093 Arroyo Dr., Fullerton, CA 92633.

Mac-Poker, five card draw for the Macintosh, from DataPak Software Inc., 155 Ventura Blvd. #1-774, Sherman Oaks, CA 91403.

MacFonts Volume I, ten Macintosh typefaces in a total of twenty sizes, from DNA Inc., 9207 McAfee Dr., Houston, TX 77031.

Two More User Groups Check In

Mac-generated newsletters from new user groups continue to arrive. We received a three page newsletter with the curious name of *Mac-Playground News*, announcing meetings designed to help form an "official" Macintosh users group. For more information, write to E. Schattner, 924 Holbrook, Ft. Walton Beach, FL 32548, or call 904-862-4908.

We have also received the first edition of a two page newsletter from the Los Angeles Macintosh Group (with a MacPaint letterhead built of freeway signs). Acting

president is Eric Anderson, who can be reached at 12021 Wilshire Blvd. #405, Los Angeles, CA 90025 or by calling 213-392-5697.

Signal #15 August 1984

User Groups: Great Source Of Software

We recently attended a local user group get-together. Fortunately, we took along a box of blank disks, because at the end of the meeting everyone took a couple of hours to make copies of all the various public domain software that was floating around. By the time our floppies cooled off, we found we had three disks full of new software to bring back to the office and play with, including: the MacTalk demo, where Mac introduces itself by actually speaking; a full-screen digital clock; three contributions from Apple's Bill Atkinson (the game of Life, a Rolodex program for storing names and addresses, and the Screen Maker utility for letting any MacPaint image replace the default "Welcome to Macintosh" message displayed when the Mac is started up); a reverse polish calculator desk accessory; a towers of Hanoi demo; a desktop version of the Amazing maze game from the Guided Tour disk; the Disk Peek utility for reading and writing arbitrary bytes on any diskette; and a calendar desk accessory written by Mary Boetcher of Corvus, who was attending the meeting along with David Ramsey in order to show off their company's new hard disk for the Mac.

By copying the Corvus disk that was on display, we managed to get copies of nine new fonts Corvus had picked up from Apple: Babylon-9, which is actually much smaller than most 9-point type, since each character is only three pixels square; Cupertino-12 and -24, the font Apple has used for their corporate lettering; Hollywood-12 and -18, a kind of Chicago with racing stripes; Lothlórien-12, useful for Tolkien book reports; Manhattan-12, which must have been derived from New York; Moria-12, a Runic alphabet perfect for your next letter to a fifth century Germanic tribe; Mos Eisley -12 and -24, like the OCR characters in your checkbook; PaintIcons-12, all the various graphics from the MacPaint display; and Stuttgart-12 and -24, a wide style often used in drafting.

AccessoryMover was our most interesting find. It's a program that lets you add, delete or rename the desk accessories that are stored in the System file and displayed in the Apple menu. Most users will probably want to delete some of their unused accessories to gain disk space, although AccessoryMover didn't seem to free up as much space as the desk accessories reportedly take. For example, we created a disk containing only AccessoryMover, System, Finder, and all the standard desk accessories, leaving 194K of available space. We then deleted all accessories except for the alarm clock, which resulted in increasing the free space to 208K, nowhere near as much of an increase as we were hoping for. Unfortunately, when we then deleted the alarm clock in order to leave no accessories at all, the Macintosh crashed as we tried to leave AccessoryMover.

AccessoryMover is from CE Software, 801 73rd Street, Des Moines, IA 50312. You can phone them at 515-224-1995. They don't sell the product directly, but instead distribute it on an honor system.

You are expected to acquire a copy from friends or user groups, and if you decide to keep it, CE Software asks that you send them \$15.

We also acquired a number of new desk accessories that can be installed with AccessoryMover, including an Executive Decision Maker, which must be the world's most complicated form of dice; The Bug, a persistent little insect that likes to wander up your CRT; and a Lisa-style clock.

The moral of this story should be obvious. Attend your next local user group meeting so that you too can get copies of all this free (or near-free) Macintosh software!

Hardware Received: Tecmar's Drive

We began phoning disk manufacturers last month to set up an evaluation of one of the newly available hard disks for the Macintosh. When we reached Tecmar (6225 Cochran Road, Solon, OH 44139-3377, phone 216-349-0600), the operator listened to our request and decided we should talk to someone in customer service. Unfortunately, no one was immediately available, so she took our name and number. We hung up thinking we hadn't made much progress with this particular vendor, but within a few hours someone from customer service indeed called back, listened to our request, and immediately connected us with a pleasant and helpful lady named Kate. With a cheerful, no-questions-asked approach, Kate set up a shipment, and within a few days Tecmar's "Mac Drive" arrived for our evaluation. Our attempts to arrange the acquisition of an evaluation unit from a vendor have never before gone so smoothly and effortlessly.

The Tecmar disks for the Macintosh can be ten megabytes fixed or five megabytes removable. Another removable five megabyte drive can be added to either model. Our unit is a ten megabyte fixed drive (apparently the most easily obtained model), serial number 241. Suggested retail is \$1,995.

The unit's footprint is slightly larger than the Mac's, and so it serves well as a Macintosh pedestal. It includes a 115V outlet, so the Macintosh can plug into the back of the disk, with the power to both units then controlled with just the power switch on the disk.

Installation and operation is actually quick and simple, but the documentation provided is far from being complete and clear. For example, the manual says the Mac can be plugged into either a standard outlet or into the outlet provided on the back of the disk, but from then on assumes the latter, so that the powering on instructions don't read correctly for someone who chooses the former. Instructions on how to power off the equipment aren't easy to find, either. The manual also fails to fully describe the connectors on the back of the disk. The interface cable goes from the modem port on the Macintosh to the disk connector marked "Serial 1". An additional connector on the back of the disk is marked "Serial 2", apparently duplicating the Mac's modem port, but the manual doesn't mention it at all.

We were surprised to find that the cable wouldn't plug into our Macintosh. The Mac's metal connectors are in slightly recessed wells cut into the plastic housing. The metal hoods on the ends of the disk cable are so thick, they couldn't fit between the housing and the connector. We had to remove one hood in order to complete the connection; a simple operation, but a potential roadblock for someone

unfamiliar with computer cabling.

Once we powered up the disk, we found it quickly reached speed and ran at an acceptably quiet level with a not-too-loud fan. Unfortunately, the Macintosh is not capable of automatically starting up from an attached hard disk. Any time the Macintosh is powered on, it must first be started up with a 3.5" diskette (included in our shipment from Tecmar) containing a modified version of the operating system that recognizes and attaches any hard disk and displays its icon on the desktop. The startup diskette can then be immediately ejected, but its desktop shadow won't disappear until an application is run from the hard disk, at which point the hard disk becomes the "startup" disk. (Making a hard disk become the startup disk would be a bit easier if the Finder supplied some kind of Change Startup Disk menu option.) In order to execute an application, the hard disk also must contain a copy of the modified operating system. Our Tecmar unit arrived already loaded with special System and Finder files (duplicates of the files on their 3.5" boot disk) installed at the factory.

Note that once a peripheral that requires special system software is acquired, the user then becomes dependent on the peripheral vendor for updates and distribution of that special software. For example, the Tecmar System folder contains a modified 1.1g Finder. What happens when Apple releases a future version? Will the new release from Apple work on Tecmar's disk, or will another modified copy have to come from Tecmar?

Once we began actually using the Tecmar drive, we quickly discovered how much fun it is to have a Macintosh with a hard disk. It's great to open the disk icon and find nearly 10,000 available disk blocks. Our first test was to see how many files we could create. Depending on whom you ask, a Macintosh can track 100 plus or minus about 20 files per disk. We began duplicating files and folders (a task that's not as quick and easy as on a Lisa, where icons can have duplicate names) and got up to somewhere over 120 icons when the system suddenly crashed. Where the fault lies for that bug is not clear.

Because of limitations in the design of the Macintosh operating system, the Mac can keep track of only a limited number of blocks of disk space. If blocks are fairly small, say around 1K each like on the floppies, then disk space is used more efficiently, but the total disk size cannot be very large. If larger blocks are used, the total disk capacity can be large, but much of the minimum increment of one block gets wasted if files are small. Some vendors are working on software that lets their hard disks be partitioned into multiple volumes that logically appear as separate disks to the Macintosh, thereby allowing the user to control the tradeoff between block size and block count. Our Tecmar appears to the Macintosh as one large disk; there is no utility to partition the disk into separate volumes. Disk space is allocated in blocks of 20K, so a MacPaint document of only one black pixel still occupies 20K of space once it's filed on disk.

It's easy to fall in love with the increase in speed over floppies that the Tecmar provides. Opening applications and especially copying files is quick and convenient. Although some operations may seem ten times faster than when using a floppy, actual timings show the Tecmar is not really that fast. For example, a 22K MacPaint document of ours takes 30 seconds to open from the floppy, but only improves to 15 seconds when opened from the

Tecmar (as a 40K document).

As icons accumulate on the desktop, Finder operations begin to slow down noticeably. For example, once we had created about 120 different files and folders, duplicating one folder that contained nothing but 28 empty folders took about nineteen seconds.

Another problem we ran into and couldn't get around was the Font Mover's refusal to move font files into the System file. We kept getting "insufficient memory" messages. Could this be because of the 20K block size?

Another current inconvenience of a hard disk on the Macintosh is that the hard disk's icon must be "ejected" before the Macintosh is powered off. This can be easy to forget for a device that doesn't actually physically eject anything.

After a few weeks of using the Tecmar, we've decided the Macintosh has obviously been designed without enough consideration given to hard disks. Not being able to boot from a hard disk, awkward limitations on file counts and logical block sizes, slow Finder operations when many files are present, support and availability of special System folders supplied by the disk manufacturer, all of these considerations must be taken into account before you decide whether or not to buy a hard disk. Despite these limitations (which are imposed on the disk because of Apple's software, not because of any inherent design errors in the disk hardware itself, and which will probably disappear with future releases from Apple), we give the Tecmar Mac Drive a definite Thumbs Up recommendation. A hard disk is just so darn convenient. But before you buy a disk, be sure to find a unit that will meet your capacity and speed expectations and requirements. Watch out for the problems we've described here. But also remember to carefully consider the time (and possibly the money) you'll waste and the frustration you'll undoubtedly encounter while putting up with the limited speed and capacity of floppies. If you then decide you can afford a disk, buy it. With a hard disk on your Macintosh, you'll not only be happier, but you'll be more productive as well. Put it this way: every Macintosh user we've seen so far who uses our Tecmar, walks away wanting one.

ClickArt Fails To Impress Us

T/Maker Graphics has sent us their ClickArt product. It's an almost completely full floppy (only 4K left unused, but 26K is wasted on a scrapbook file which only contains duplicates of some of the other documents, and 3K is wasted on a MacWrite copyright notice) holding 28 MacPaint documents containing over 100 separate drawings: a gorilla, two cats, an egret, Rodin's Thinker (a head-on view!), Michelangelo's David (one small, one large), four cars, the space shuttle, an astronaut, two postcard skylines, three blank "billboards", eight border designs (a number of other borders also decorate a variety of the documents), a camera, dice, light bulb, phone, push pin, key, watch, candle, plant, frog, elephant, panda, another plant, wood screw, two singers, three George Washingtons, Lincoln, the Liberty Bell, the Statue of Liberty, twenty-six styles of arrows, a beer mug, wine bottle and two glasses, a corkscrew, farm house, pig, horse, cows, bird, Albert Einstein, James Cagney, Boy George, Dustin Hoffman, two John Kennedys, Teddy Roosevelt, Mona Lisa, Beethoven, Sherlock Holmes, a tennis player, jogger, skier, football player, a man

in the rain, a chef, six cartoon people, Reagan, Hart, Mondale and Jackson.

We've decided to give this collection a Thumbs Down and not recommend it for a number of reasons. The subjects are too arbitrary and topical. The organization and naming is poor. For example, the Stuff folder contains the documents named Little Guys, Bigger Guys and More Little Guys. Bigger Guys are the key, watch, candle, and plant. The quality of the drawings varies too much, with the portraits of people, especially Cagney, Reagan, Kennedy, Hart and Jackson being particularly poor. Mondale's drawing is positively ghastly.

Although ClickArt comes in a nice plastic case suitable for storing five diskettes, there is no way to know what the images look like until you actually display the product on a Macintosh. Hard copy showing what the drawings are and what folders they're in isn't anywhere on the outside or inside of the storage case. Once someone has the chance to actually examine the images, we think they would hesitate to spend the \$49.95 suggested retail price.

For a short while, we expect clip art disks (and also font files) to be such a novelty that they'll sell well in the Mac market, but we think the real future for this kind of data will be through mail order. Some company will eventually develop a catalog of, say, a few thousand images and fonts. The reader will pick and choose the files he or she needs, fill out and send in an order form along with a dollar or so per image, and by return mail receive an automatically configured diskette containing only the pictures and fonts of interest to the owner.

T/Maker is at 2115 Landings Drive, Mountain View, CA 94043. Phone 415-962-0195.

Mac-Jack Earns A Thumbs Up

Yes, a 3.5" disk can withstand the rigors of our Postal Service, because one recently arrived here completely unprotected inside a #10 envelope from DataPak Software, Inc. An enclosed flyer explained we had just received Mac-Jack, a Macintosh blackjack game.

The first thing we do with any submitted disk is to make a copy, if possible, just in case we clobber the original. We couldn't do that with Mac-Jack, though. It's copy protected, and wouldn't pass through the disk copy utility or allow its files to be copied with the Finder. Our version is apparently a "demo copy" that starts the game automatically once the Macintosh is booted from the disk. A purchased version hopefully provides Mac-Jack in the form of a desktop icon, but we couldn't tell from the printed instructions we received.

The documentation is a bare minimum, and to a large degree duplicates the explanations available in the Rules and Help pull-down menus that are displayed once the game is started. DataPak should have put more of the printed documentation right in the menus. Anything left over could then simply be printed on the disk label.

Once you start playing by entering your name, the program is completely mouse-controlled, easy to understand, and simple to operate. Only one player is allowed. Shuffling and dealing is animated, and doubling and splitting bets are supported. The game is fun and very entertaining. We've won as much as \$4K, but have also lost as much as \$20K.

We thought of a few changes we would make to Mac-Jack. The worst feature of the game is that it uses

only one deck, which makes it tough to practice for the real thing at a multiple-deck casino. One deck also runs out often, and while seeing the little hands reshuffle the cards is cute the first few times, it gets a bit boring after a while. The game would be better with multiple decks. A few of the flashing messages like "Dealer Plays" and "Player Paid" tend to cause unnecessary pauses that might make the game too slow for an impatient gambler. Also, there is no "click-ahead" with the mouse. For example, you must click on your cards for a hit, but to make sure the click is detected, you have to wait until the dealer is finished dealing the last card to itself. Having to wait can become boring for a quick player. Fewer messages and click-ahead might improve the game's pace.

We noticed the card totals are shown in a scaled font size and so do not appear as crisp and clean as they could. One last improvement could go in the target box labeled "Your Bet", where chips are placed to start a hand. If the box were instead labeled "Place Your Bet Here", the display would be more self-explanatory.

The game seems priced a little high at \$39.95 suggested retail. If we were selling, \$19.95 would be the price we'd try. Even so, if you like blackjack and don't mind the one deck limitation, we can give Mac-Jack our Thumbs Up recommendation (though we still suggest you see it in action before you buy). DataPak is at 14744 Ventura Blvd #1-774, Sherman Oaks, CA 91403. You can phone in your order to 818-905-6419.

Subscriber Interests And Activities

Raymond Solomon, Fairbanks, AK: My interests are photography and computers. I am an instrument/communications/SCADA technician and I have a lot of ideas for the Macintosh for use in my work.

Diana Cox, Purdue University, IN: We are in the process of developing CAI software for the Mac. Next year we will require students in our Executive Master's program to have a Mac.

Robert Purvis, Baltimore, MD: Dr. Marc Riddell and I use our Lisas extensively in our work (clinical psychology and law, respectively). Our Lisas have also assumed a major role in the planning, execution, and documentation of a model residential program for substance abuse recovery, upon which we have been working for the past three years.

Christi Blauwkamp, Mesa, AZ: I am using my Mac for writing a book and for inventory of my business.

Ed Coxey, Nashville, TN: My company is currently using a Lisa/Macintosh for a dial up clip art system.

Carl Kruhm, Gaithersburg, MD: My wife is a public school administrator and I am a teacher of learning disabled students as well as a realtor associate. We are interested in programs for tutoring and teaching reading, writing and study skills, and real estate appraising and sales.

John Kohlenberger, Sunnymead, CA: I am a Lisa/Macintosh end user and certified developer. I use Lisa for my own businesses (Automotive Pen Ups and Computer Art & Design), for my job at TRW, and for local community organizations. You may also have noticed my "Knightrider" MacPainting on the cover of the most recent *Icon*.

Tim Matheny, Nashville, TN: I am a minister, and my personal interests in Mac software and hardware include word processing

(we are currently using MacWrite and MacPaint to publish our church bulletin), games, and telecommunications. One thing I am anxiously awaiting is publication of some version of the Bible on Mac disks, along with an application to move a specified scripture text into a word processing document via the clipboard. Similar ideas have been popping up lately for other systems, so I am hoping it won't be long before we see MacScripture. If you hear about such an application, could you please let us know?

The Secret Lisa Service Mode

Scott Seligsohn of Narberth, PA happened to tell us about his discovery of a special service mode built into the Lisa. To invoke this feature, hit the space bar during the power up memory test to make the Lisa eventually stop and display the Startup From menu. Click on an invalid device in the menu to deliberately cause an error display (a dialog box with choices of restarting or going back to the Startup From menu). Now hold down the Apple key and hit the S key. The Lisa will go into a special service mode and display a list of available self-test diagnostics.

WARNING: DO NOT TRY LISA'S SERVICE MODE UNLESS YOU ARE WILLING TO TRASH YOUR DISK AND DISABLE YOUR MACHINE. Be prepared to create more damage than you can repair. If you decide to experiment with the service mode, leave your disk off, if possible, to prevent clobbering any of your files. Some of the available diagnostics will clear Lisa's parameter memory, thereby destroying possibly vital information such as the date and time, your preferences, and other configuration data.

Once we chose the Power Cycle test, our Lisa would no longer boot properly, and we had to use the Startup From menu to be able to start from disk, after which we had to use the Environments window to reset the Office System as our default environment. As a result of trying other self-tests, our preferences got totally garbaged, and only the Workshop preferences command seemed to be able to reconstruct our choices. A number of times we had to rely on the reset switch in the back of the Lisa to force a restart. Be careful! Exploring Lisa's hidden service mode can be hazardous to you and your machine's health.

This Month's Mailbag

Toolkit Selling At Cost

You might want to inform your readers of two offerings from Apple which have not yet been widely publicized. The first is the pre-release version of the Lisa Toolkit. I got my copy for FREE from Apple. This package contains over 700 pages of documentation and eleven diskettes of software. An incredible bargain for the price! Just today, I received an order blank from the same department for the released version.

For Macintosh owners, *Inside Macintosh* is also available from Apple. This is an 800-page manual with lots of good information. The price is a bit steep at \$150. The version I have is a bit sparse and definitely gap-toothed. Purchase of the *Macintosh Software Supplement* includes diskettes, more documentation, and a future copy of the released version of *Inside Macintosh*. This seems a better deal at only \$100!

Tom Elerding, Montecito, CA

The Toolkit was originally intended to be the primary development tool for Lisa desktop programmers. It remains the only available method for creating a true desktop application, but Apple won't be releasing the Toolkit as a supported product. In the past, Apple gave away the pre-release Toolkit to anyone who showed an interest, and about 350 people have done that to date. But now that a released version is ready, Apple is selling the Toolkit at cost: \$30 for the software (six diskettes), \$20 for the source code (four diskettes), \$35 for listings, and \$90 for the documentation. To actually use the Toolkit, you need the 3.0 Workshop, which hasn't been released yet. Workshop order forms will automatically be sent to dealers and developers, who will be able to upgrade from 2.0 by sending in their original Pascal I disk and \$125, probably around the end of September. Anyone can order the Toolkit and Workshop directly from Apple. Using a P.O. box, not including California sales tax, or some other such error will only delay your order, so first get Toolkit and Workshop order forms by writing to the Software Resource Center, Apple Computer Inc., 20525 Mariani, Mail Stop 2-P, Cupertino, CA 95014.

The 350 people who were already sent order forms also received a questionnaire asking what they would like to see done with the Toolkit. Dave Redhed is compiling the results, and he recently told us that of the 51 responses he has received so far, his preliminary tallies indicate that almost everyone wants to develop Office System software, about half have never used the Toolkit, and about one third would like to see the product taken over by someone and become a commercial venture. Apple says the Software Supplement only entitles you to the released Inside Macintosh (available in the first quarter of 1985) if you purchased the preliminary version. Inside Macintosh and the Supplement are available from Apple at 467 Saratoga Ave. #621, San Jose, CA 95129, but we only recommend them to users with Lisas who plan on doing serious Macintosh cross-development. -Editors

One Billion Served?

I would very much like to receive your newsletter. My Lisa serial number is thirteen characters long. Why such a long number? Is Apple planning to sell a billion?

Robert Wilson, Ridgefield, CT

Two Mac Deficiencies

Two comments about problems with the Mac. First, there is no easy way to print out the names of all the files stored on the disk, like the DIR command in CP/M or MS-DOS. The only work-around seems to be to display one level of files at a time and screen dump it to the printer with Shift-Command-4. Second, the filing system does not always remember the hierarchy of folders within folders. Let's say I open a folder named BUSINESS FORMS, then open a file inside called FORM #1. If I then save FORM #1 under a different name, like REVISED FORM #1, this new file should return to the BUSINESS FORMS folder from which it sprang. But instead, REVISED FORM #1 ends up in the top window, placed at a level higher than where it started.

When are you going to start charging for *Signal*?

Michael Arenson, Santa Cruz, CA

As long as our readers respond to ads and convince our advertisers to continue selling their wares on our pages, we should never have to charge for a subscription. At least,

not in the U.S. (See next letter.) -Editors

A Foreign Exchange

Byte recently mentioned *Signal* and your subscription rates. With regard to women's lib or the integration of races, America is reputed to be one of the most avant-garde, liberal states. What about transferring liberality to domains other than women's lib or race integration? As a European resident, I feel discriminated against for not being a U.S. resident. I see that free postage or air mail delivery fees to Europe aren't justified, but I cannot see any reason for having to pay for more than these fees if your distribution policy is fair. As a European resident, I have to pay nearly triple subscription rates for any computer magazine. Not to mention the waiting times until they arrive. Is it possible to get *Signal* for nothing more than the delivery fees? Getting access to special Lisa-related information would be more than valuable to me. I am looking for PROLOG or LISP implementations for the Lisa, serious non-gimmick statistical packages running on a Lisa, and some review or recommendation of Unix V implementations for the Lisa, items of which scarce, if any, mention is made in the usual wide-scope magazines.

Peter Michael Fisher,
Tübingen, West Germany

We use airmail outside of the U.S. because surface mail is too slow and unreliable. We've sent you issue #14 by airmail so you can decide if a subscription is worth it. Notice the required postage totals almost nine times what it costs to send the same issue to anyone in our own country. Because of these high postage costs and the special handling required for foreign issues, we think \$2.00 per issue is a fair and accurate delivery fee.

We doubt if anyone is ever going to implement PROLOG on the Lisa, but we have seen a Lawrence Livermore Lab report titled "A Portable LISP Interpreter" (order report UCRL-52417 from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161). The report is 17 pages long and consists mainly of a listing of the interpreter, which is coded in 1,056 lines of Pascal, is well commented, and includes a cross-reference table. Maybe you could make it run in Lisa's Workshop? -Editors

An Author Needs Help

I'm writing a book on art and the Mac. I would like to speak with people who are using the graphics arts capabilities of the Mac in their trade or business. This would include artists, planners, architects, designers, printers, illustrators, technicians, publishers, art directors, etc. Please call (619) 942-3838 or write to me at 2139 Newcastle Avenue.

Vahe Guzelimian,
Cardiff by the Sea, CA

Don't overlook the Lisa. Because of the capabilities of LisaDraw, a lot of "video desktop" users are doing their graphics work on the Lisa, not just the Mac. -Editors

Some *Signal* #14 Feedback

Your article on 7/7 was very informative, much more so than paging through the quarter-inch thick dealer information booklet published by Apple. In fooling with the 7/7 version of LisaDraw at my local dealer, I found that another minor flaw in earlier versions has been fixed: you can now construct much smaller circles (and some other

shapes, too). I use them for dots on schematic diagrams to denote electrical connections, etc.

It would have been great if Apple could have seen fit to create a menu selection to allow text to actually become part of a drawing. It would allow text to be shaped, stretched, expanded, contracted or even curved to follow the contour of another object. Oh well, maybe version 4.0?

George T. Elerding sounded interested in a database program more powerful than LisaList. Brock Software (Crystal Lake, IL) markets one called Keystroke. I have not had any hands-on experience with it yet, but it looks quite flexible.

Like Mr. Elerding, I have experienced some hardware problems. During high resolution printing, the printout is occasionally compressed vertically, just enough to be quite noticeable. My dealer has replaced the Imagewriter control board to no avail. The Lisa I/O board failed the self-test programs; we are currently waiting for a replacement from Apple. It has been a three-week wait so far, and my warranty died on August 5th. I have even entertained the thought that it may be a software problem that might be cured by 7/7. Wish me luck.

In the August 20th issue of *InfoWorld* ("Mac's success Rubs Off On Lisa"), Ken Lim of Dataquest in San Jose was quoted as follows: "Despite the common conception among buyers that only a handful of Lisa software products have yet been developed, Lim estimates there are about 150 different programs available solely for the Lisa". How can we software-starved Lisa users lay our hands on even a partial list of the programs?

Bob Ziller, Brea, CA

As far as we can tell from the sales brochure, Keystroke (like all other third party software currently available for the Lisa) runs as a stand-alone program, and is not an integrated, Lisa-like, desktop application. A lot of users would like to see a database manager that lives on the desktop and that interfaces with the other existing Lisa applications.

Think your printer problem might be software? First try arranging a temporary swap with a properly working printer to find out if the problem is in your printer or in your computer.

As for all that Lisa software, you'll have to ask Mr. Lim. It should be interesting to hear how he arrived at his estimate. -Editors

Habadex Back Again

We were about half way through testing the original version of Habadex that we received as reported in *Signal* #13, when we got a call from Morrisa Zimmeth at Pollare Fischer, Haba System's public relations firm. Morrisa explained that a new release would soon be available, so we decided to put our Habadex evaluation on hold. Sure enough, a new kit arrived early this month, this time with an adapter to allow Habadex and Macintosh to plug into the phone lines (our original kit only included the software), along with a new disk with a small sticker identifying it as version 1.1, and a 21-page addendum explaining various changes and enhancements. No word on what the upgrade policy for existing users will be. We've started our evaluation over. Morrisa is trying to find us some large demo files so we can exercise the software at its limits without having to spend forever typing in a lot of dummy data. Stay tuned for further developments.

Exploring Lisa's New Office System

Apple's primary goal at the recent National Computer Conference in Las Vegas was to show off as much new Macintosh software as possible, but Lisa users also received some interesting news: announcement of the third release of the Office System software, now named Lisa 7/7. Seven sevenths (the seven applications) make a whole, get it? Soon after the announcement, and two days before dealers were scheduled to receive their new Lisa software demo kits, we made the short drive over to Silicon Valley for a presentation by Tim McNally, 7/7 product manager.

We weren't expecting to find too many new features in the product, mainly because there were so few improvements over 1.0 when 2.0 was released earlier this year. We had heard rumors about better cutting and pasting between applications and about some kind of spelling checker in LisaWrite, but not much else. It wasn't long after our arrival in Cupertino before we found out just how wrong we were. After seeing Tim's two-hour demonstration and pouring over Apple's press releases and the new 7/7 documentation, we've been able to compile descriptions of just about everything that has changed...

Lisa 7/7 is a major improvement over the existing Office System, and consists of new versions of all seven of the Lisa applications and their manuals, bundled together into one price and package. (Lisa packaging has certainly see-sawed. The original Lisa software was bundled, then it unbundled with last year's price drops, and now it's bundled again.)

New Lisa buyers can purchase 7/7 for \$695 in August, while existing 2.0 users can upgrade for \$150 in September. What you get for your money is one 5" wide slipcase that holds all eight manuals, seven for the applications and one for the Office System. The slipcase also contains a book-like holder for the 14 disks containing the software. In the spirit of the Apple/32 product family, all of the Lisa manuals are now spiral-bound paperbacks just like the Macintosh documentation.

Every manual has been completely overhauled. The portions we've read so far are definitely an improvement over the old versions. Most explanations have been expanded, and there's more material on Lisa techniques and methods. The Getting Started sections in each manual are still there, but the Tutorials have been reworked into chapters that explain features without requiring the user to move step by step through long examples, reportedly because most users never tried the Tutorials anyway.

Changes and improvements to the Office System and the applications have been made everywhere. One new feature becomes apparent while installing 7/7, because you are given the option of partitioning the hard disk. This allows a portion of the disk to be used for Macintosh files that are saved while using the new version of MacWorks that's due in September.

Once 7/7 is up and running, one immediately observable difference from 2.0 is a new pull-down menu called Desk, which lists all windows and icons currently on the desktop, along with a check mark if the

document is already open. Like File/Print, Desk is available in every application. Selecting an icon or window listed in the Desk menu moves the document to the front of the display and opens it if it is closed. This nicely solves the problem of finding a document on a crowded desktop. A recent *Icon* article by Jeffry Spain suggested a Move Window To Back menu selection, but Apple's solution is a lot more powerful. Users who upgrade will probably be surprised at how much they end up relying on selecting windows from the new Desk menu.

Good news if you share a Lisa with other users but need some privacy for your files. A new File/Print menu option is called Attributes Of..., and displays a dialog box that, besides showing an icon's edit dates and size, lets you create or change a document's password. Any document or folder can have a password assigned, after which it cannot be opened, thrown away, moved or duplicated unless the password is given first.

Once an application window is opened, the File/Print menu now also includes a Print As Is selection to allow printing to start immediately, bypassing the dialog box for checking the current format settings. One major 7/7 improvement is that more than one document can now be queued for printing. Tim mentioned this to us, as did Apple's press release, but we couldn't find any description of this feature in the documentation.

In some tools, Format For Printer now supports arbitrary paper sizes, with dimensions input by the user. Instead of storing printer formats with each document, we still think a better design would have been to support printer icons, each with its own paper specifications. Printing would be accomplished by moving a document icon over to a printer icon. That way, a document wouldn't have to be opened before printing, and different printer icons could represent different paper types, even if they all physically share the same printer.

A few new capabilities have been added to disk handling. Just as we wished in our last issue, documents larger than one diskette can now be individually backed up, with Lisa automatically prompting for extra diskettes. Also, a dialog box that appears whenever a diskette icon is duplicated now allows one diskette to be copied to another. And, probably mostly of interest to software developers, the Lisa will now mount disks not in Lisa format.

We discovered a few other interesting new features described in the Office System manual. The Shift-Option-7 key combination copies a screen dump to disk for later printing, but how printing is then actually accomplished wasn't described. Also, the desktop's Edit menu has a new selection called Copy Reference, which copies the name of a selected document to the Clipboard to allow non-Lisa applications (for example, an encryption program) to access Lisa documents. Copy Reference will also be used in AppleBus networks to allow operations such as moving a document from a file server to a Lisa.

The good news for peripheral makers is that device drivers can now be installed and removed separately from the operating system, under the control of the Preferences window. One new device now supported by the Lisa is an 86 megabyte disk with 1/4" tape backup. The unit is built by Priam and distributed by Tecmar. Lisa can also now print in color, using the Canon PJ-1080A ink-jet printer which will be retailing for somewhere around \$795.

Tim set up the Canon printer for us straight out of a new shipping carton, but got stuck when he couldn't find an interface cable, so we haven't actually seen one in action yet. Its resolution and speed are reportedly not quite as high as the Imagewriter's, but the sample color output we saw was quite striking, and the repeatability of the dot positioning seemed better than the Imagewriter. The unit holds two cartridges, one for black ink, the other for the three colors (which when blended in various combinations produce a really nice spectrum of available hues).

All of the seven applications have been improved to some degree, and some more than others. The application with probably the most changes is LisaDraw. Many of the enhancements were necessary to support color output (to the printer, not the screen). The old Shades menu now appears twice, once as a Fill menu showing the usual 36 patterns that can be used to fill objects, and again as a Pen menu to allow your pen to draw not just solid lines, but lines composed of any of the 36 patterns, just like MacPaint.

The line and fill patterns don't have to be black and white, either, since a new Color menu provides a selection of white, black, yellow, green, red, magenta, blue and cyan. Overprinting those colors builds other colors. Also in the Color menu is a Background selection, so the chosen color can be used for the inside background color of patterned objects.

Two cues help the user "see" colors on the black and white screen. First, a Color Box appears in the lower left corner of the window above the Line/Fill Box. The Color Box contains the initials of the foreground pattern color and the initials of the background fill color of the currently selected object or palette symbol.

For the second cue, the Color pull-down menu provides the selection named Show Background Colors, which causes each colored object to be filled with the initials of its color. Showing the background color for a green square changes the square's pattern to lots of small G's, for example. The selection Show Fill Patterns returns the insides of objects to their normal patterns.

The cues are better than nothing, but they sure don't measure up to a good color display. Perhaps the availability of color hard copy will now speed up the development of color monitors.

Type Style menus in LisaDraw and in the other applications are now all organized as just two faces, Modern and Classic, with each face allowing eight sizes (two more than before): 8 point 20 pitch, 8 point 15 pitch, 10 point 12 pitch, 12 point 10 pitch, and 12, 14, 18 and 24 point proportional. This is a much better arrangement than the old scheme, but unfortunately a Mac-like font mover and font editor are not available.

Three new options in LisaDraw's Edit menu allow selected text to be all lowercase, all uppercase, or "titled", which means the first letter of each word is capitalized.

The Round Corners option now includes a choice of zero, so rounded rectangles can be made square, and vice versa. The Round Corners dialog box also includes an option to force all rectangles to be rounded.

The Arrangement menu now includes Paste In Front and Paste Behind (shouldn't those be in the Edit menu?), and Rotate Left, Rotate Right, Flip Horizontal, and Flip Vertical, just like MacPaint.

Draftspeople are really going to love these features. Any object, even text, can be rotated or flipped, although a line of text then loses its

little alignment indicator and becomes just another object, so that you can't, for example, insert a character in an upside-down piece of text. However, if the text is unrotated back to its normal position, the alignment indicator returns and the string of characters again becomes text that can be edited.

Smoothing and reshaping are somewhat different now. Smoothing a freehand line or a polygon turns either one into a "curve", and unsmoothing any curve turns it into a polygon, even if it originally was a freehand line.

Reshaping a freehand line (not a curve, since it has not been smoothed), works as before, but reshaping a polygon or a curve (remember a curve is a smoothed polygon or a smoothed freehand line) now allows selecting single or multiple handles and duplicating or removing handles for more reshaping power. Use of the Option key allows two points on one object to be placed exactly on top of one another, so that objects with both curves and angles can be drawn and reshaped.

Important additions to the Page Layout menu are Reduce To Fit, Reduce To 70%, and Show Actual Size. Like LisaProject, these selections work for drawings of any size and support editing of any non-text object. The reductions are only for the display and don't affect printed output.

The only change in the Lines menu is that a Switch Arrows selection will move an arrowhead to the opposite end of a line. The obsolete Black/Gray/White selections have been dropped, of course, since lines can now consist of any pattern from the Pen menu.

The first big news for LisaWrite is the addition of spelling checking and correcting functions using the *American Heritage Dictionary* of "80,000 most common English words in all their forms" along with a user-definable personal dictionary of up to 750 words. Making good use of these dictionaries are a number of functions provided in a new menu called Spelling.

The Find Next Misspelling choice from the Spelling menu will find and select the next word after the current insertion point that is not in the two dictionaries. The Suggest Corrections option will display suggested alternative spellings for the currently selected word, and also provides a Paste option so that any incorrect spelling can be immediately replaced.

Since the Suggest command uses the currently selected word, the word being checked may be the result of a previous Find Next Misspelling search, or it may be a word directly singled out and manually selected for spelling checking by the user.

Put In Dictionary is a menu selection to add currently selected words to the personal dictionary if not already there, while Remove From Dictionary drops words. To allow easy editing of your personal dictionary, the Write Dictionary To Document selection copies the contents of the personal dictionary to the current (and usually blank) document so it can be edited with LisaWrite. Last but not least, Clear Dictionary can erase the personal dictionary. With these menu selections, and with the ability to move dictionary words back and forth from LisaWrite, a user can easily create any number of custom personal dictionaries, stored as LisaWrite documents and swapped in and out of the on-line personal dictionary as required.

The other major enhancement to LisaWrite is more general cutting and pasting with other applications. Cells from LisaList can now be

pasted in, and, just like the MacPaint and MacWrite dynamic duo, LisaWrite can now paste in LisaDrawings, LisaGraphs and LisaProject charts. LisaDrawings pasted into LisaWrite can print in color.

LisaProject can now schedule in one of two distinct ways: parallel scheduling, which assumes an unlimited supply of each resource so one resource can simultaneously do multiple tasks, or resource scheduling, with limited resources doing only one task at a time.

Like MacProject, the Lisa version now also supports costing, and provides new Chart menu selections for Resource Cost Entry, Task Cost Entry, display of the Cash Flow Table, and display of an all-but-the-kitchen-sink Task Table perfect for pasting into LisaCalc. Resource and task displays now include cumulative and incremental costs running along the top of the chart.

Apple's press release claims LisaCalc's speed has been improved, but doesn't say by how much. New options in LisaCalc's Page Layout menu include Preview Page to display a table showing where page breaks will occur.

LisaCalc's Printing Options dialog box now provides the optional output of page numbers and titles, grid lines, and column letters and row numbers. The For Your Information selection provides details on the speed and number of recalculation passes and the amount of memory used.

LisaCalc's Protect menu now includes Invisible and Visible selections for hiding or revealing cell contents. The old Calculate menu's Circle choices have been reworked into a Circle dialog box that allows circling of cells that: are invisible, are involved in a move (in other words, are on the clipboard), are missing data, are protected, are involved in a circular reference, or are dependent on selected cells. The former Find Next Missing Values is now Find Next Circled Cell, and general purpose Find What? and Find Next Occurrence options can search formulas or values or both for a given value or formula.

The Function Hints selection shows that correlation and regression functions, hyperbolic sine, cosine and tangent, standard and modified internal rate of return, and net future value functions are now supported. There are even functions to compute a determinant and to solve a system of linear equations.

Changes to LisaTerminal include the addition of a 19,200 baud rate option in the Computer Compatibility dialog box for the Setup menu, optional word wrap in the Comfort dialog box, and a Character Sets menu selection to allow a match to foreign non-ASCII host systems.

A new and separate Ruler pull-down menu controls the ruler for tabs going into LisaTerminal as well as a separate column ruler to define how LisaTerminal text should be divided into columns for copying to other Lisa tools. Instead of just one Copy option, the Edit menu now instead offers Copy Text for copying tab-free text padded with spaces as displayed on the screen, and Copy Columns for copying text with tab characters inserted at the positions defined by the new column ruler.

Three new graph types have been added to LisaGraph. The Graph pull-down menu now lets the user select Stacked Bar to get all the column bars for a row to stack on top of one another instead of displaying side by side. Or, Solid Bar can be selected to give some shading and depth to the standard

bar graph. The third new type is Area, to shade in the area under each line in the standard line chart. Solid Bar and Area are actually fairly minor improvements to LisaGraph, since the same effect could be accomplished under 2.0 by pasting the graph into LisaDraw and then adding bar shading or filling the area under lines with various patterns.

LisaGraph's Customize menu has added Show and Hide Regression options to draw or delete a regression line and associated confidence factor showing the best fit across data points for a selected column, and Show and Hide Data Points options to control the display of the little endpoint markers on line and area charts.

Apple's brochures claim that LisaGraphs can be printed in color, but the documentation doesn't explain how, unless they mean by first pasting the graph into LisaDraw and coloring it there.

As best we can determine, LisaList has "only" improved in that it can now cut and paste with the other applications.

After seeing an essentially unchanged Office System for the last year and a half, 7/7 is a refreshing revision that certainly adds a lot of power to the Lisa. The above descriptions of changes, enhancements and new features should make it clear why our feeling is that users should run, not walk, to their dealers as soon as their upgrades are available. Unfortunately, the release date of the 3.0 Workshop compatible with 7/7 has not been announced yet. That means that unless Workshop users are willing and able to maintain both a 2.0 Workshop and a 3.0 Office System, they may have to delay their upgrades until the 3.0 Workshop is ready. (Apparently it's the documentation, not the software, that's currently keeping Workshop 3.0 in the lab.) When the new Workshop is released, its major enhancement will be QuickPort, which allows a Workshop program to be executed from a window in the Office System.

Wouldn't it be great if Lisa could improve this much every eighteen months?

Stanford Making Mac Tools

A group of researchers at the Stanford Medical Center are finishing up a Macintosh development system to allow programmers to write their software in C on a VAX, then compile and download the object code to a Mac. The system is in alpha test now, and hopefully will be done by the end of the summer, when magnetic tapes containing the system would become available for distribution. To use this system, your VAX needs to be running Berkeley Unix, and your Macintosh needs MacTerminal so downloaded files can be received using the modem7 protocol. To keep informed on the progress of this project, you should monitor the info-mac bulletin board on the Usenet network. A good description of Usenet starts on page 219 of the October 1983 Byte.

The Latest On Three Mac User Groups

Kiran Narsu is organizing a Macintosh users' group for the Capital area, tentatively called CAMUG. If you're interested in participating, write LELA Computer Suitsors, 1695 Route 9, Grand Union Shopping Center, Clifton Park, NY 12065.

Victoria's Macintosh User's Group (notice how each group has their own idea of where to put the apostrophe?) in British Columbia is tentatively called Victoria'SMUG by their newsletter editor pending upcoming name and logo contests. This month saw the creation of their newsletter's first edition, a Mac-generated eight page publication with lots of news, hints and comparison shopping.

(American readers have to be careful to remember that the prices are in Canadian dollars.) For more details about this group, write in care of Apples Victoria, Box 5338-B, Victoria, BC V8R 6S4, Canada.

We plugged the for-profit Club Mac group back in May, and since their newsletter competes with Signal for advertisers, we really hadn't planned on mentioning them again, but they sent us a copy of their 30-page second edition, and it's so good we felt we should at least let you know about it. So, for the last time: to join up, send your \$35 to 735 Walnut, Boulder, CO 80302. If you can talk them out of a free issue of *The Club Mac News* for you to check out first, you'll probably then have an easier time convincing yourself to spend the money.

This Month's Mailbag

Thank you! Thank you! Thank you! As you suggested in the March 19 issue of *Signal*, I checked the DIP switch setting on our dot matrix printer and lo... our printer also was not configured as the manual recommends. I changed it to use the entire 3K print buffer. Now thanks to you I am printing this letter in about two-thirds the time it would have required before.

William A. Ackel, San Diego, CA

I have the following comments in response to articles and letters in *Signal* #13. Please make sure that your forthcoming review of Habadex and any other software is objective. Too many computer publications, especially the smaller ones, seem to pander to their advertisers.

Regarding MacDraw, I too am interested in mechanical drawing with the Macintosh since I am an engineer and Mac owner. But, I have a real problem in accepting computer-aided design because of cost versus benefit and practicality. If I spend 20 hours per week drafting with pencil and paper, and using a computer cuts that down to two hours per week, then I am interested. If the potential savings is only five hours per week though, I doubt if I will be able to justify thousands of dollars in equipment purchases. Besides, how am I to do large assembly drawings with a Mac? What will I print out on that can give me the 24" x 36" format that I need? I think I had better contact Bruning rather than Apple if I want to get into hard-core computer-aided design.

Regarding Lisa software, the lack of third-party software for Lisa should not be surprising. The amount of software, especially third party software, is directly proportional to the number of machines sold, and inversely proportional to the price of that machine. A \$10,000 Lisa does not get many takers. A \$2,500 Macintosh will generate enough sales volume to attract the attention of software developers. The question is, will the number of programs for the Macintosh ever approach the number written for the Apple II series? I seriously doubt it.

As a parting item you mentioned the cost of diskettes. My dealer ordered a box of ten Memorex diskettes for me recently. He paid \$39.90 and he sold them to me for

\$49.90. A "cheap" diskette for the Macintosh may be a ways off yet for two reasons. One, the diskette is composed of more pieces than 5-1/4" floppies. The hard shell and spring-loaded shutter spell added cost. Two, volume is not on our side yet. My personal feeling is that the added cost is justified by their convenience. I just love their 400K capacity and they really do fit in a shirt pocket!

Rick Edwards, Jamestown, TN

There would have been a lot more Lisa software by now if the Toolkit or even just some Pascal library routines for desktop management had been available when the Lisa was first released. Apple simply did not make available the necessary tools so that developers could create applications similar to the ones written by Apple's own programmers.

Our local office supply store sells ten Maxell diskettes for \$44.99 and Memorex at \$49.99 (but only small quantities of Memorex are available). -Editors

I'm sure that *MacWorld* and *St. Mac* will do a good job of reviewing new products. What I would like to see are more technical features on interfacing hardware to the Mac, and on writing applications that use the mouse, dialog boxes, pull-down menus, sound generator, etc. With the impending release of the Mac assembler, and Creative Solutions' Forth Level II, it should be possible for the average Mac owner to really grab a hold of the power of the machine.

Brett Sher, Campbell, CA

We continue to try to work with Multiplan with mixed results. Version 1.02 was some improvement. At least we could save a sheet without garbage. The new version, however, has its problems too. When run on the Lisa 2 with MacWorks, quitting a worksheet can mean locking up the system with an "ID 33" (full directories). The only way to get going again is to turn the computer off and start over. After some very frustrating moments and some serious hacking, I found that if you replace the Finder in Multiplan with the new version 1.1 Finder from the revised MacWrite and MacPaint, the problem seems to go away. It also puts the icon over to the far left of the screen, out of the way, on start up. Life gets easier!

Gary Ingram, Davenport, CA

See also the letter from Vic Treutel in the July St. Mac. You'd expect the Mac to remember a disk icon's last position, wouldn't you? -Editors

I am using my Lisa at home to support my position as a software development manager at a local aerospace firm. My wife also uses the system extensively in support of her work as a senior buyer at a small electronics manufacturing company. I find the Lisa extremely useful, but wish for a good data base management system. LisaList is not exactly what I have in mind! It seems a strange deficiency in an otherwise outstanding computing tour de force.

I have experienced a number of system problems which the dealer has helped in a vigorous manner to solve. In the process, however, all of the electronic innards of my Lisa have been replaced, as well as one of the system software disks and the Profile. While I appreciate the support from the dealer, the magnitude of the replacements has me worried. When I go off warranty in another three weeks, how much will I have to shell out to keep the system running? I'd be curious to

know what experience other owners have had in long-term reliability.

George T. Elerding,
Santa Barbara, CA

We once had an old twiggy disk start to make strange sounds, so it was replaced under warranty. Otherwise, all of our Lisa and Mac equipment has always worked perfectly. -Editors

As a consulting architect and "overseer" of a Lisa 2/10 and a Mac, I found your eleventh issue short, sweet and helpful, particularly the item on dumping the Imagewriter file from MacPaint disks for additional memory. Where does one get Lisa Pascal, and/or information thereon? Many architects and designers with Lisas are using Pascal to develop custom programs, or employing programmers who use Pascal. It's a language I'd like to learn, since upcoming Mac Pascal isn't going to get programs running under Lisa 2.0, or deal with screen distortion when running Mac programs on Lisa. All of us Mac hackers will probably have all the resources we need as time goes on. We Lisa hackers will probably need all the help we can get, but isn't it fun?

William S. Adelman, Chicago, IL

We'll have to make some tests: now that the new MacPaint has a Print Final menu selection to provide high resolution output, it may require the Imagewriter file. Go to any Lisa dealer to get the Lisa Pascal Workshop, but be aware it's designed for experienced programmers. To first learn the language, Mac Pascal is much better. -Editors

Signal #13
June 1984

Exploring The Macintosh Upgrade

If you've been staying in touch with your Mac dealer, by now you should have acquired the free software upgrade that recently became available. We popped over to a nearby ComputerLand outlet with some blank disks to get our copy, and within minutes we were back at the office exploring the changes that Apple has made. The upgrade's new disk copy utility is fantastic. Many users waiting for an external disk will probably decide they can live without it, once they find how easy it now is to copy disks on a one-drive Mac.

We were happy to find more new fonts and text sizes, and noticed the system no longer requires 12 point New York (it uses Geneva instead). Unfortunately, MacPaint and MacWrite don't always seem to want to include every possible point size in their size menus. Is there some kind of undocumented limit? The new Cairo font is fun, and shows the kind of creativity that can be expected once the font editor is generally available.

Many users have independently discovered the Cairo Option-Shift-A character, but how many found Option-U followed by Shift-A?

To Shift Or Not To Shift: It's An Option

We found the special Cairo Option characters by trying all 28 of the so-called "dead key diacritical" combinations (in other words, all of the accented characters that can be generated by using the

Option key to overstrike certain letters). Unfortunately, the only good description of the available combinations of accents and characters seems to be buried in the Lisa Workshop manuals, so many Mac and Lisa owners must use trial and error to find the legal overstrikes: â, ê, î, ô, û, à, è, ì, ò, ù, á, é, É, í, ó, ú, ä, Ä, ë, ï, ö, Ö, ü, Û, ã, õ, ñ, Ñ. For example, an umlaut generated with an Option-U can be used for an accent if immediately before a Shifted-A, -O or -U, but not -E or -I.

Where To Go To See Or Read More

All kinds of interesting catalogs, newsletters, magazines and articles either by or about the Lisa and Mac keep arriving here every day.

Tom Day sent us a copy of his *Lisa/Mac Developer's List*, a comprehensive directory of all known hardware and software products being sold or announced. It's a 32-page LisaWrite document that includes company addresses, phone numbers, contact names, product prices or scheduled delivery dates, and (as a nice touch) the source of the information, such as an issue and page number from *Macworld*. Copies are \$2 each from Century Next Computers, 2120 Missouri Blvd., Jefferson City, MO 65101. The *List* says subsequent updates for buyers are free upon request, but we imagine that at least a stamped, self-addressed envelope will have to be supplied to take advantage of that offer.

We've received two more examples of computer store newsletters generated with the help of a Lisa. One is a very slick looking twelve page issue from Computer Plus (1328 S. Mary, Sunnyvale, CA 94087) that has a nice style with lots of graphics.

The second newsletter is *The Castle Caller* from Castle Computers (720 New Loudon Rd., Latham, NY 12110), which features a front-page trumpet blaring musical notes. Readers who decipher each issue's changing tune are entitled to prizes or discounts. Publishers armed with Lisas may want to contact these two stores to get samples of their work.

The folks at dilithium Press sent us a copy of their 40-page fall catalog. We waded through it and, besides three other Mac books, found one with software called *PC To Mac and Back: A File Transfer Utility for the IBM PC and Macintosh*. It includes disks for each machine and costs \$49.95.

Starting last month, A+ magazine began featuring a special section devoted to Lisa and Mac. It was twenty pages in May. USA subscriptions are \$24.97 at Box 2965, Boulder, CO 80321.

Speaking of May issues, a letter from Mac and Lisa user (and architect) William Adelman at Trauth Associates in Chicago mentioned that the May issue of *Progressive Architecture* has an interesting article on Lisa computer aided design in architects' offices, including a LisaDrawn cover.

If you would like to help determine the contents of future Mac books, Kay Nelson at VisiCorp's VisiPress wants to hear from you. VisiPress has a detailed questionnaire to let you describe just what kind of Mac book you want them to publish. Also, you can submit tips or shortcuts. If used, you'll get "credit in the book" along with a free copy. For more information, call 408-942-6291 or write to 2895 Zanker Rd., San Jose, CA 95134.

How To Display Priam Whamos

What do you mean, you haven't seen Lisa's calculator font? Just run the following program in the Pascal Workshop, and you'll get a fascinating series of displays that include Lisa logos, scissors and printer icons, calculator keys and a Priam Whamo or two. Hit any key to display the next font, or hit the mouse button to quit.

```
program chars; {show Lisa's fonts}
uses ($U qd/quickdraw) quickdraw,
      ($U qd/qdsupport) qdsupport,
      ($U qd/hardware) hardware;
const heaplim = 10000;
var heapbuf: array[0..heaplim] of integer;
    myport: grafptr;
    event: keyevent;
    c,fontn: integer;
    info: fontinfo;
    penpos: point;
begin
  qdinit(@heapbuf,
        @heapbuf[heaplim],nil);
  openport(@myport); fontn:= 0;
  repeat
    fillrect(theport^.portrect,white);
    textfont(fontn); getfontinfo(info);
    moveto(5,info.ascent+5);
    for c := 0 to 255 do
      begin
        drawchar(chr(c));
        if fontn = 3 then move(15,0);
        getpen(penpos);
        if penpos.h > (720-info.widmax) then
          moveto(5,penpos.v+info.ascent+
            info.descent+5);
        end;
        if keybdevent(true,true,event) then
          if event.key = $06 then halt;
          fontn := fontn+1;
        until false;
      end;
end;
```

Habadex Received

In *Signal #12*, we guessed that the Habadex product for the Mac might be able to handle a reader's need to maintain a list of 3,000 mailing labels. As a result, Tony Jordan of Haba Systems called early this month and let us know the capacity of Habadex was more on the order of "500 to 600" names. Haba has since sent us a copy of their product, which we're now evaluating. Watch for our review in a future issue. (Just as this issue was being completed, Haba's public relations firm called and, among other things, mentioned 10,000 Habadices have been shipped, and another 19,000 are on order.)

MacWrite Can Send ASCII

If you have a MacWrite file and you need to transmit the text as an ASCII character stream to some remote device, such as some other computer, you may be able to do it directly from MacWrite using Draft mode printing.

To do the transfer, plug the Imagewriter cable coming out of the Mac into the input port of the target machine, which should be configured to receive data just as the Imagewriter would (consult the printer documentation to determine baud rates, handshaking, pin assignments, and so on). Then have MacWrite "print" the document in Draft mode.

The target machine will receive the text as a stream of ASCII characters. A few imbedded escape codes intended to control certain printer functions will be included. If a sufficiently powerful text editor is not available to delete the escape sequences, the target machine will have to be programmed to explicitly delete or ignore Imagewriter control codes.

Our Current Wish List

1. There are many times we need to lasso a large, rectangular object in MacPaint, but find it awkward to

draw the necessary enclosure.

Wouldn't it be nice if holding down the Shift key would cause the lasso to form a nice, rectangular enclosure, just like the selection rectangle does, but which would shrink to fit as usual when the mouse button is released?

2. Lisa won't allow a folder to be moved to a diskette if the folder is larger than the disk. This makes backing up a single, large folder very difficult. Wouldn't it be nice if any size folder could be copied to a diskette, and the system would automatically prompt for additional diskettes, just like during full or incremental backups of the system disk?

3. We've heard more than one Mac user wish there was a way to select more than one size of eraser in MacPaint, but there already is a way to do that: just select the desired brush size and use white paint! Actually, wouldn't it be nice if the size and shape of erasers and brushes could be interactively designed with a "mini-FatBits" editor like the one used to edit patterns? An elliptical brush or a hexagonal eraser could be created in seconds.

Incremental Backups Miss Workshop Files

We have noticed that although a full backup on the Lisa will save both Office System and Workshop files, subsequent incremental backups of files that have changed will only include Office System files. Workshop files that have changed since the last full backup must be backed up manually from the Workshop.

Clear Your Desktop In Three Clicks

Imagine a desktop with a pile of open, nested folders and windows. To put everything away, a Lisa user will often individually save and put away each window and icon, neatly selecting and filing each folder until the screen is clear. This can involve a lot of mouse movement and clicks, especially if a large number of windows are open or if the printer is running (which often causes sluggish response and missed double clicks on a window's close box).

A simple and often overlooked method for quickly clearing a crowded Lisa screen and then filing everything away is to: Set Aside Everything from the File menu, Select All Icons from the Edit menu (or use the Apple-A keys), then Save & Put Away Icons from the File menu. One last click on the blank desktop then deselects any remaining icons.

This Month's Mailbag

In writing about the unfortunate discrepancy between the Lisa and Mac CRT aspect ratios that we last mentioned in *Signal #11*, William Ackel of San Diego wondered if "Apple could supply special glasses with MacWorks that would cancel out the distortion?"

Manny Abraben is a potential Mac purchaser and architect looking for computer aided design software and plotters for the Mac. Write to Architects Design Consortium, 2691 E. Oakland Pk. Blvd., Ft. Lauderdale, FL 33306 or call 305-564-2314.

Paul Kaplan needs a program to emulate an ADDS Regent terminal on his Lisa. Write to Addem San Diego, 923 Daisy Ave., Carlsbad, CA 92008 or call 714-268-8448.

Our *Mac Freezes Lisa* story in *Signal #11* attracted a letter from Leigh Ann Miller of Universal Computers in Alexandria, VA, who wrote: "Please make sure you have clear information before you send alarming messages to Lisa customers. Future software developments will be focused mainly towards the Macintosh desktop. However, consumers will see an evolution of both the Lisa and Mac operating systems so that they will eventually be one in the same with multitasking, large memory and hard disk storage. Hence, the 32 bit family will have a shared system that is neither operating system as we know them today. As a dealer, this is the understanding we have received from the manufacturer". Well, we still think that the future 3.0 release will be Lisa's last "evolutionary" step, after which owners will only see developments growing from the Mac side of the family tree. Isn't it sad that 18 months after Lisa's introduction, there is still no third-party software for the desktop?

Louis Holly (1642 Big Dipper Way, San Diego, CA 92173) wrote: "I'm having trouble believing that after writing to Apple many times, asking three dealerships in San Diego and joining two Mac users groups, I still can't find anyone even remotely interested in using their machine for drafting and mechanical drawing. Can you help me in any way?"

Our *Lisa Upgrade* article in *Signal #11*, which described receiving LisaTerminal for "free", prompted a letter from Thomas Stoner, the service manager at Complete Computer in Ann Arbor, MI: "If you had never purchased LisaTerminal, your upgrade kit did not 'include' LisaTerminal. You did, however, steal a copy of it from your dealer. Apple price lists indicate the upgrade is to include 'new diskettes for each application the customer already owns'. The dealer in your story demanded the return of the LisaTerminal diskette because the dealer is required to return seven master disks to Apple, either 3.5" or 5.25". If we don't, we are billed for them at full retail. I am currently having to prove that we returned the old twiggy drives with one upgrade. Apple has billed me \$1,302 for those two drives! The dealer would have to pay \$295 if LisaTerminal were missing from an upgrade kit when returned. You said you can't justify buying LisaTerminal, but can you justify ripping it off from your dealer? Around here, the free upgrade isn't always free. If we originally sold the Lisa, the upgrade is free, otherwise we charge a \$25 flat fee to do the upgrade on-site. These upgrades take from one hour to much longer to perform, not including travel time. One 'simple' \$25 upgrade took six hours to do because their Profile crashed and the machine had to be converted back to reload the hard disk. I billed them \$25 for my time. In addition, we will convert for anyone all of their data files to 3.5" disks, erase and reload their Profile. This costs \$50 per hour, two-thirds our normal on-site labor rate. I spent 13.5 hours on one site doing this. They had so many diskettes, it took three Profiles to hold them all. We provided the extra hardware without charge for the conversion. You might claim we are ripping off these people on this 'free' upgrade, but if so, it is hard to explain why we have upgraded approximately three times as many Lisas as we have sold. Apparently some people are willing to pay a little extra for good service. I hope you see fit to correct your mis-information in a near future issue."

For some users, handholding can

be worth almost any price, and we have no qualms about that. But can a user be expected to know about upgrade agreements between Apple and the dealers? The dealers and Apple should know who bought what software and prevent upgrades for unpurchased software from reaching the user in the first place, otherwise there are bound to be misunderstandings. By the way, we have a couple of old twiggy drives we can let you have real cheap...

Walter Wolaniuk Jr. is looking for a Lisa general ledger package that ties in with DRG and PPS reports as required by recent federal cost containment legislation. Write to Kensington Hospital, 136 W. Diamond St., Philadelphia, PA 19122 or call 215-426-8100.

Last, but not least, a number of readers have written looking for a cheap source of 3.5" disks by mail. Are there any out there?

Signal #12 May 1984

User Groups Sprout

Groups of users seem to be springing up all over the place. The first organization to come to our attention was the Macintosh Users Group in San Francisco, which was formed eight days after the Mac was introduced by Apple. Attendance hit 80 at the group's second meeting on March 26th, which included gatherings of ten special interest groups. Their plans include an electronic bulletin board, a "National Gallery" of public domain Mac graphics, and sales of blank disks, public software, and other goods. A newsletter called *MacMeet* is already in production and was scheduled to grow to eight pages this month. Membership is \$30. For more information, call founder Betsy Radford at 415-441-8648 or write to 2040 Polk St. #340, San Francisco, CA 94109. Members wanting to participate in the MacForth special interest group should contact Dudley Ackerman at 415-626-6295.

The second user group we discovered is one being formed by Louis Aversano for Mac users in the New York and New Jersey area. Membership is \$5 per year and includes a newsletter. Call (201) 536-8360 or write to 50 River Dr., Marlboro, NJ 07746.

Club Mac is a for-profit user group that formed April 1st in Colorado. There are no local meetings, but the \$35 annual fee brings a monthly newsletter, access to a Help Line, and a Mac disk that includes demo programs, a membership card and certificate (suitable for output on your Imagewriter), and a program written in Microsoft Basic for communications by modem and access to the Club Mac bulletin board and data base. For more information, call Rick Barron at (303) 449-5533 or write to 735 Walnut St., Boulder, CO 80302.

A Santa Barbara Mac user called to tell us that a user group has been formed in that area by Mike Ginsberg of The Computer Terminal at 90 W. Highway 246, Buellton, CA 93427. The phone number there is 805-688-1713.

The Boston Computer Society is organizing its Mac users. Jack Hodgson is the contact at Box 526, Boston, MA 02238.

The San Diego Macintosh Users' Group (they use an apostrophe) found their roster swelled to 50 members after only one meeting. Membership is free, but a \$15 per year fee is required for their monthly *San Diego Mac News*. (The Mac-generated first issue was ten

pages long, plus it included a list of all members.) Meetings are the fourth Wednesday of each month. For information, contact Charlie Jackson at 619-566-3939 or write to Box 12561, La Jolla, CA 92037.

Last but not least, a newly formed Lisa Users Group meets every other Wednesday in San Francisco, and it would like to know what other Lisa groups exist. Write to Joan Dickey, in care of Computer Connection, 214 California St., San Francisco, CA 94111.

Toolkitters Organizing

Ed Paynter, the Toolkit user and Lisa software developer who had contacted us to report the disappointing news about Apple winding down the development of Lisa software (see the story in last month's issue), followed up his call with a letter to us asking to help him establish a dialog with other Toolkit users. By organizing developers as a group, Ed specifically hopes to: share experiences in getting Toolkit programs to work, consolidate and organize future inquiries to Apple, provide incentive for Apple to make a serious commitment to Clascal language programmers, and to get desktop applications on the market sooner. Ed's first goal is to establish contact with other developers. If you are a Toolkit user and are "concerned about your progress and Apple's commitment", call Ed any day at 317-257-7561. His address is Software Constructors Inc., 6508 Westfield Blvd., Indianapolis, IN 46220.

Publish Your Macintosh Art

Every magazine, newsletter, and user group software library seems to be soliciting users for Mac-generated art and graphics. Now yet another buyer is in the market for your MacPaint and MacDraw creations: a combined book and disk named *Macintosh Art*, to be published in October by Osborne/McGraw-Hill and sold in bookstores. Submittals that are published will be paid for and acknowledged with artist biographies. According to editor Paul Hoffman, this is "not just another clip-art disk", since all the images can be seen on paper before having to buy the book/disk. Emphasis will be "on images that can be used in professional writing, such as reports, letters, and memos, although other art will be included". For more information, send a self-addressed, stamped envelope to Macintosh Art, 2600 10th St., Berkeley, CA 94710 or call Paul at 415-644-0433. The deadline for submission of images is July 15th.

This Month's Mailbag

When writing to us, our readers (especially Mac owners) are constantly including doodles, drawings and miscellaneous machine-generated art that make opening the mail each day particularly fun. This month's kudo for best graphics goes to Mike Johnson in Trenton, OH for his two MacPaintings of the space shuttle. We appreciate everyone's letters and hope to see much more art, but we apologize for not being able to reprint them in *Signal* due to space limitations.

Elaine and Laurence Hall of Springfield, VA wrote that they have a Lisa and are interested in developing software for the Lisa and Macintosh. They have been software developers for five years and each have a master's degree in computer science along with an MBA. "Currently we are assessing

the needs of the home and business community to determine our next software application. We hope that people will write to *Signal* with their ideas so that we may better serve the 32-bit Apple family".

K. Y. Fisher of Phoenix, AZ is looking for Lisa software to maintain a mailing list of up to 3,000 names and to print labels by ZIP code. Haba Systems' new Mac software (call 818-901-8828) may do the trick if it runs under MacWorks, but we've also heard rumors that the next Office System release will paste LisaLists into LisaWrite. If so, a LisaList column of asterisks (or some similar placeholder) could be replaced by carriage returns in LisaWrite, allowing a rudimentary reformatting of address lines into labels.

Signal #11 April 1984

Mac Success Freezes Lisa

Ed Paynter, an Indianapolis Lisa Toolkit developer, was the first person earlier this month who let us know Apple had informed him that software development for the Lisa was winding down and would be frozen after the next release of the Office System. Our subsequent checks with various Apple personnel supported the news.

Apparently the success of the Macintosh has convinced Apple to move all development efforts over to that product, which has its own version of the desktop metaphor. A forthcoming release of the Lisa desktop will feature a number of improvements to existing Lisa applications, but then Apple will consider Lisa software "complete" and will only provide a minimum of support, such as bug fixes. New applications software will have to come from independent developers, of which there seem to be very few for Lisa.

Lisa users should probably expect that most future software for their machine will actually be designed for the Mac desktop, and will therefore only run on a Lisa using the MacWorks environment. Lisa seems destined to primarily become a "big Mac", especially once MacTerminal, MacDraw and similar applications are all available, thereby duplicating Lisa's software capabilities and overcoming any particular advantages in Lisa's own Office System. How Apple will solve the discrepancy between the two machines' CRT aspect ratios (72 pixels/inch on Mac, 60/inch vertical and 90/inch horizontal on Lisa) remains to be seen.

Free Another 17K Of Disk

A number of Mac users, such as Michael Cleveland of Greensboro, NC, have sent us letters describing how they delete or move unnecessary files and data in order to leave as much free disk space as possible. Creating separate MacPaint and MacWrite work disks is a popular technique.

Many users mistakenly assume that the Imagewriter icon in the System folder must be present before the printer will work. In fact, this is only true for MacWrite. The icon can be trashed on a MacPaint disk and documents will still print.

Can You Type A Robot?

A number of undocumented characters can be typed on a

Macintosh by holding down the Shift and Option keys and hitting the tilde key in the upper left corner of the keyboard. Different fonts and sizes will usually generate different special characters (hearts, robots, rabbits, and so on). Since the symbols are just like any other text characters, they can be enhanced with style options such as outline or shadow. The leaves and boxes in Toronto and the Monaco stripes make nice borders when consecutively typed in a long row.

Lisa Upgrade Ups And Downs

Just as last month's *Signal* was being printed, our free Lisa upgrade kit arrived.

We were pleased to find the kit included LisaTerminal, which we had always wanted to try but couldn't justify buying because the Transfer utility in the Workshop already met our needs. Unfortunately, a LisaTerminal manual is not included in the upgrade kit.

Interestingly, Larry Sprowls of Computer Technology Associates in Englewood, CO wrote and mentioned his dealer "demanded" that he give up the LisaTerminal disk from his upgrade kit since he had not previously purchased LisaTerminal on floppies!

On our first glance through the kit, we noticed the new bezel drops the Lisa logo. Also, the "fingertip hole" in the bezel slot for the disk is on the right end of the slot (like on the Mac), as though right-handed users are assumed. Not only is this awkward for left-handed users, but wouldn't disks slide in more easily if the slot was widest at its center (to encourage us to grasp a disk at the middle instead of at the corner)?

The kit includes a new *Owner's Guide*. We like the format of the old *Owner's Guide* much better.

The upgrade instructions mention counting pins or checking part numbers in order to identify chips, but the part numbers listed and the number of pins in the illustration are both wrong!

Fortunately, the whole process is simple enough that it's difficult to get too confused.

We found it much easier and quicker to do the upgrade by leaving the I/O board plugged in. Removing it was only really necessary on older upgrades when the CPU board also needed to be modified.

Be sure you have plenty of 400K microdisks for all your documents before doing the upgrade. The first time we tried to install the new Office System after loading our Profile with all our documents as instructed, we had less than 500 free blocks left, which turned out not to be enough.

Unfortunately, we didn't find that out until part way through the installation procedure after the floppy disks had been replaced, making it very difficult to recover. The instructions should really indicate how many free blocks are necessary. (Thanks to Tom Pennello at Metaware for bailing us out on that one.)

Another thing the instructions don't warn about is the incredibly long time the new Office System takes the first time it boots up, apparently as it converts every old file to the new 2.0 format. This can take so long that you may easily be fooled into thinking the system has hung.

In general, our upgraded system runs fine, but there have been a few minor disappointments: the system aborts the first time a document is opened after a backup; low print resolution is now the default for all our old documents; the Workshop conversion trick mentioned in *Signal* #3 no longer seems to work. Larry Sprowls also reported that LisaWrite underlining now no longer prints in landscape mode.

Art Dept. Correction

In last issue's review of Art Department, we complained about

individual states not being selectable on the U.S. map. At the urging of Cathy Betz of Business & Professional Software, we tried again, only to discover we were mistaken, and that individual states can indeed be selected from the map. Our apologies.

This Month's Mailbag

David Morris of Montgomery, AL pointed out to us that the Locked check box in a document's Get Info window on the Macintosh really doesn't provide that much protection, since a locked document can still be edited and changed, just not disposed of or replaced.

Joseph Serdakowski, a chemical engineer in East Greenwich, RI, uses his Lisa to quickly prepare small models of industrial chemical processes with LisaCalc, and to draw graphic operating procedures for "people who can't read very well". He is currently searching for a FORTRAN compiler for Lisa.

Joseph Osborne of Computer Link in Carlisle, PA is a dealer looking for anyone who has a TV camera interface to Lisa or Macintosh, to aid in "preparing advertising".

In our last issue, we mentioned that Bill Stanley and the Computer Shoppe in Greensboro, NC was looking for help in attaching plotters to a Lisa. Since then, Bill has sent us a note saying they now "have LisaDraw documents driving a Hewlett-Packard plotter from the desktop". They are plotting in multiple colors, which are selected via the line thickness pull-down menu!

Dave Redhed of A.P.P.L.E. in Seattle, who discovered the problem with large fonts printing too wide in LisaDraw as we first reported in *Signal* #8, wrote and explained that he forgot to mention that the bug only shows up when printing in landscape format.

Signal #10 March 1984

Does Your DMP Need Speed?

One of our readers recently called to describe some problems he was having with his dot matrix printer (the original model, not the new Imagewriter). He mentioned that while diagnosing the problem, he had changed some of the DIP switch settings but forgot to write down the original switch positions before he changed them. A dealer later gave him a list of recommended switch settings, and we began comparing the list over the phone with a Semaphore printer known to have DIP switches that have not been changed since the printer was shipped directly from Apple early last summer.

To our surprise, we discovered that switch 2-2 controls the size of the printer's input buffer, and that our printer did *not* have the switch at the recommended setting. (See Appendix C of the printer documentation for a list of switches and recommended settings, and see page 37 of the same manual for a description of how DIP switch 2-2 controls the size of the printer's input buffer.) We quickly opened switch 2-2 to provide a full 3K print buffer, powered on the printer, and ran some tests. Immediately we found that short lines would print much faster than before. Our first test was to print a typical business letter. With the new switch setting, the total time to print dropped by about 36 percent!

Signal's Mac Arrives

Our Macintosh arrived late last month, and we dropped everything so we could spend the day with the machine simply playing around and

exploring its capabilities. What follows is a compilation of some of our notes, first impressions, and other observations as we began using the machine for the first time:

... Good grief, those 3.5" disks sure look tiny, and now we have yet another form of magnetic medium to keep in the storage cabinet (along with our 8" disks, two styles of 5.25" disks, .5" reel-to-reel tape and .75" tape cartridges), but it is nice how the enclosed design of the Mac disk means we don't have to worry about protective sleeves and careful handling ... The Mac packaging (artwork, Apple decals, small toy-like size, and simple instructions that open with "the adventure begins here") really convey a sense of fun ... The Mac easily fits onto a crowded desktop ... Too bad the Imagewriter is so big and heavy. The adjustment lever for setting paper thickness is still hard to reach, just like on the older Lisa model, and the noise level is too high for a quiet office, but the great print quality and speed help make up for those deficiencies ... The Guided Tour disks and audio cassettes are fantastic. An edited version that requires no operator interaction would be a terrific demonstration tool for dealers ... After using a Lisa, it takes a while to get used to the Mac's smaller, etched, non-glare screen, but the high resolution prevents it from becoming a problem, and soon even a Lisa user finds the Mac display quite acceptable ... Finding an alarm clock among the desk accessories was a nice surprise. Alarms aren't mentioned at all in the documentation, so Apple must have included an enhanced version of the clock at the last minute ... MacPaint is especially fun to play with and learn. It's interesting discovering how a "bit map" editor like MacPaint differs from a "graphics" editor like LisaDraw. You need a completely different frame of mind as you approach the task of creating a drawing. Until a few tricks are learned, selecting and adjusting a previously drawn object in MacPaint seems hard for experienced LisaDraw users, and in general MacPaint seems to require a bit more artistic talent from the user than LisaDraw does. Fortunately, MacPaint's amazing FatBits mode allows touch-ups at the finest level of detail, and MacDraw is supposedly coming soon, so LisaDraw lovers need not despair too long if they've been hoping to move their work to a Mac. Just keep in mind that MacPaint is more like an artist's tool while LisaDraw is more like a drafting tool ... The selection of type faces is much better on the Macintosh than on the Lisa, and being able to select just about any point size is very convenient. It's also nice having the Font Mover utility so that unwanted fonts can be moved off disk to free up space. Now if we could just design our own fonts ... Apparently MacPaint only prints drawings, including text, at screen resolution, while MacWrite can print the same fonts bi-directionally in "high" resolution. Pictures pasted in from MacPaint are still output at screen resolution, though.

Received: Art Department

Business & Professional Software sent us a copy of their product for evaluation: a disk filled with a library of LisaDraw images called Art Department.

The idea behind this product is that instead of struggling to create decent looking images, say to enhance your newsletter or sales presentation or other LisaDraw document, you can simply open a folder on the Art Department disk, select and cut an already drawn image created by an artist, and just paste it in.

Before the product arrived, we already had preconceived notions that the \$150 price tag seemed a bit steep for a disk of clip art, even if it does contain over 300 drawings.

But once the product arrived, we used it to design an actual handout for a sales call, and we quickly became convinced that anyone trying to produce professional looking graphics with LisaDraw can easily get their money's worth using Art Department. All of the images are of a very high quality and well designed. The selection of drawings is surprisingly thorough and offers much to choose from. Each image is carefully thought out and easily customized. For example, the receiver in the telephone drawing can be lifted from its cradle, and the front bezel on the image of a Lisa can be switched between the old and new disk styles. We often found that the mere availability of a good drawing would cause us to think of a way to include it in our document.

The manual that's supplied is clear and thorough, but most users will probably just jump right in and start cutting and pasting. A printed directory of all the drawings is included, prepunched for a standard Lisa binder, to help you determine which folder icon contains which drawing.

On the disk itself is a business forms folder containing a calendar and drawings of a check, invoice, purchase order and general purpose statement form; a folder of different types of graph paper; a folder of "graphic elements" such as fancy borders, large brackets, dashed lines and shapes, arrows and pointers, three-dimensional structures and "accents" like check marks and stars; a folder of flags and U.S. and world maps; a "media" folder of communication symbols such as a book, flipchart, podium and television; an office folder with drawings of equipment, furniture and supplies; a folder of common household objects, measurement symbols such as a ruler and stopwatch, and symbols for people and places; a folder of road signs and vehicles; a folder of large block characters; and a folder of economic, industrial and job function symbols.

The collection of fancy borders in the graphic elements folder includes only the upper left corner of borders for a page. You have to duplicate and flip the border over to form the remaining page corners. We found this much more difficult to do than it looked.

All of the maps appear very accurate, but unfortunately we found we couldn't select individual states out of the U.S. map.

We frequently discovered that it was difficult to control the relative position of objects in an image being squeezed or enlarged, but that is really a problem with LisaDraw, not with the image library itself.

Overall, we found Art Department to be inviting, helpful, easy to use, well designed and well organized. The vendor can be reached at Box 11, Cambridge, MA 02142 or you can telephone 800-342-5277.

This Month's Mailbag

A letter recently arrived from Vernon Brown, an engineer in Iowa who does hydraulic layouts and schematics with LisaDraw. He has created a data base of basic hydraulic symbols (valves, motors and so on) and now cuts and pastes them across windows to create working drawings.

Since this technique can be used for any engineering drawing, not just hydraulic schematics, Vernon thought that other engineers might be interested to know that the ten to twelve hours minimum it used to take him to manually complete a drawing has been reduced to one to two hours maximum on his Lisa.

Mary McIver of Genealogical Record Search at 1207 Michigan, Elizabethton, TN 37643, is trying

to find genealogy software for her Lisa, after determining that LisaList is "inadequate for storage".

A dealer sent us a copy of the first issue of *Computer Rumors*, their newsletter composed on a Lisa. Writers and publishers wishing to see one more example of a small publication produced with a Lisa might try requesting a copy from The Computer Room, 1492 Central Avenue, Albany, NY 12205.

Bill Stanley of the Computer Shoppe in Greensboro, NC is investigating the possibility of attaching plotters to Lisa. If you have a similar interest or information on LisaDraw file structures or plotter drivers, please call 919-299-4843.

Signal #9 February 1984

Our Coverage Expands

Not only is this issue twice as long as each of our previous offerings, but *Signal* now also covers news and information for users and developers of the newly announced Macintosh. Expanding to cover Macintosh is only natural, since the Mac and Lisa are so closely related and really form the start of a family of products using the technology introduced on the Lisa. (If this is a trend, expect Apple's third machine in January, 1985!)

Rotation By Reflection

We recently had to use LisaDraw to draft a set of large, stylized digits from zero to nine. Instead of creating the digit "9" piece by piece in the same way the previous eight digits were drawn, we simply used LisaDraw to rotate the digit "6" that was already on file. While the Macintosh MacPaint program offers a Rotate command for 90 degree turns, objects in LisaDraw can only be rotated by reflection. This is accomplished by grabbing a handle and moving it across the object to the opposite side of the drawing in order to "flip" the object over. Flipping across both axes results in a 180 degree turn. For example, if the upper right corner of a large, hand-drawn "6" is selected and moved to the far lower left, the object flips over into a "9".

Other Mac Publications

Macworld is published by the same people who do *PC World* for IBM PC users. The 144-page first issue became available at the same time the Mac was announced. Subsequent monthly issues begin in May. Charter subscriptions are \$24 for one year. Send your order to Box 20300, Bergenfield, NJ 07621. The premiere issue included reviews of MacPaint, MacWrite, Microsoft's version of Multiplan for the Macintosh, and even an art gallery department featuring MacPaint graphics.

Although we haven't seen an issue yet, another Macintosh publication is *ST. Mac*, produced by Softalk at Box 60, North Hollywood, CA 91603. One year subscriptions are also \$24.

Workshop Editor Trick

Say you have a long Workshop text file of a thousand lines and you only want to keep ten lines that happen to be right in the middle of the file. The Workshop editor doesn't support split windows like LisaWrite, so the two ends of the document are nearly impossible to select for deletion because they're larger than the editor's window. If the ten lines to be saved are cut to the clipboard, the remaining text

lines still can't be deleted with a cut because they would then overwrite the clipboard. How can all but the ten lines be deleted?

The trick is to cut (or copy) the ten lines to the clipboard, select all of the document, then paste! (Some users hit the backspace key to cause a delete before pasting.)

This technique of pasting over selected text is easy to forget. It is interesting to note that selected text in LisaDraw can be replaced by pasting text from the clipboard, but selected objects such as rectangles cannot be replaced by another rectangle with a paste command.

LisaCalc Margin Waste

Printed spreadsheets that fit all on one page are a lot easier to work with compared to those that spill over onto multiple pages. LisaCalc users often select 15 Pitch Gothic in order to keep as much text as possible on one page, but even at the resulting seven or so lines per vertical inch, only 60 rows can be printed before a page jump is forced. LisaCalc should print at about 8 lines per inch when 15 Pitch is selected, and then allow at least 85 rows per page. Supporting 20 Pitch Gothic like the Workshop editor would allow even more rows and columns per page.

Mac vs. Lisa Design Details

Any experienced Lisa user taking their first look at the Macintosh will immediately notice a small number of differences in the way the desktop is designed and displayed.

For example, folder icons have rounded corners, the wastebasket is called trash and has a closed lid, the menu bar often contains the Apple symbol, windows include a bar for icon counts and available space messages, the name of the active window in the title bar is highlighted with full length stripes instead of a small segment of black, the command key in pull down menus is a kind of cloverleaf symbol instead of the Apple trademark, the size box in the lower right corner of a window contains a symbol slightly different than the one on the Lisa, and so on.

One easily noticed difference in scroll bar design is the absence of any view buttons for scrolling one screen full at a time. Dropping view buttons is probably a good idea, since they seem to frustrate users more than help them. (Instead of simply holding down the mouse switch on a view button until the screen scrolls to the desired point, users often click on the view button repeatedly while the screen tries to catch up. Usually the user incorrectly guesses the number of clicks that are necessary, and the screen contents end up positioned someplace other than where the user intended. LisaWrite users seem to run into this problem the most.)

Cleaning Up Endpoints

When a thick line in LisaDraw is drawn right up to the edge of some shaded object that has thin border lines, the thick line will noticeably overlap the thin line. To correct the overlap, simply select the thin line object and "bring to front" using the first option on the Arrangement pull down menu, or select the thick line and "send to back". Either way, the overlapping endpoint ends up hidden behind the thin line object, resulting in a much cleaner and more professional looking drawing.

More Kudos For Lisa

A January issue of *InfoWorld* bestowed one of that magazine's three Product of the Year awards upon the Lisa software. Our congratulations to Apple.

How To Lose Preferences

Reader Bill Starbuck told us he discovered that the Preferences window fails to work if the Profile is fully restored from floppies. The Hotline verified that, because of a bug, Preferences will sometimes fail after a restore.

Software Received

BPI Systems in Austin, Texas has sent us a copy of their "General Accounting" package for the Lisa. The package supports basic payables, receivables, general ledger and payroll functions. BPI is well known for its accounting software on Apple and IBM micros, and the software and documentation they sent us certainly has the look of a tested, proven, and well supported product.

Unfortunately, the Lisa version runs as a stand-alone system, not as part of the Office System, so there are no windows or icons or other desktop-style features like those that make the Lisa easy to use. Instead, the programs take full control of the machine and generate simple screen displays typical of many other products. BPI has announced that a version of the package that is integrated with the desktop will be available later this year.

Note: Issues 1 through 8 were devoted to the Lisa.

Signal #8 • January 1984

Mail From Our Readers

Doug Briggs at Apple in Massachusetts wrote to tell us "LisaCalc 1.4 and new version of the Office System have been revoked for an indefinite period of time". (See *Signal* #6, 1.4 Release Fixes LisaCalc.) Serge Polevitzky of Hi-Tech Computing in San Diego also wrote to us, claiming "Office System version 1.4 has fallen into disfavor, as version 1.4 is reported to have more bugs than 1.2 or 1.0. The currently accepted fix for using the Apple plus Period keys in LisaCalc is: don't do that!"

Serge's letter also included some help for users who have run out of serial ports: "Suppose you have a modem, Imagewriter [Apple's new dot matrix printer], and Letter Quality Printer. This would tie up three ports, when only two are available on the Lisa. Put the modem and LQP into serial ports A and B. An Apple D-25 Centronics cable can connect a Lisa parallel port to a MicroFazer parallel-to-serial 64K buffer, and an RS-232 cable using pins 1 to 8 and 20 connects the MicroFazer to the Imagewriter. The MicroFazer is jumpered for 9600 baud and request-to-send, while the Imagewriter gets set to 9600 baud and X-on/X-off. Since Apple has not announced a serial card for the Lisa, this method saves shuffling the three serial devices around the two serial ports, and buffering does a lot to free up the Lisa. I am sure other (such as Practical Peripherals) buffers work just as well."

Serge also mentioned that error message #950 appears several times while installing Pascal, but that Apple's Hotline says this is an expected error and not to worry.

James Stephens, from Pasadena's Jet Propulsion Laboratory, sent us a copy of his interesting six page memo on "thoughts and suggestions about the use of personal computers [read Lisa] at JPL". Attached to the memo was a chart comparing Lisa with the IBM XT using VisiOn, the HP 9836A, the Corvus Concept, and the IBM 9000. The chart is similar to, but more detailed than, the Lisa vs. IBM XT comparison published in *Icon's* first issue. James also included a copy of an engineering drawing that is by far the most complicated LisaDraw document we have seen to date. The drawing nicely demonstrates how shrinking Lisa listings with a reducing photocopy results in a professional, typeset look.

Last month we received a copy of the *GD Info Net Personal Computer Newsletter* from the General Dynamics Data Systems Division in San Diego. The 20 page December issue was created on a Lisa by a seven person staff, part of a group devoted to supporting General Dynamics employees who use personal computers. The newsletter is mostly articles about Apple and IBM products, with one page of the December issue devoted to Lisa news.

Charles Negin of Grove Engineering in Washington Grove, Maryland, sent us a copy of a letter to Apple that included a Lisa wish list. Most of the wishes were for LisaDraw: allow "shrink to fit" as in LisaProject and LisaGraph; provide more line types, such as dashed or dotted lines; allow user defined shades; provide rotation of any object, including text, to at least every five degrees; allow the angle of an arc to be read with "show size"; allow pages to be cut and duplicated exactly along a page boundary, even if crossed by an object. For example, cutting along a page boundary crossed by a circle would extract only the arc on the page being cut.

Other Grove Engineering wishes: not keying software to machine serial numbers, so that if a Lisa is taken in for repair, the Profile or system diskettes don't have to be taken in also if the repair people need to run them; allow queueing any number of documents for printing; allow the out-of-paper printer sensor to be overridden; support a

printer and plotter that can produce engineering drawings up to size D or E, to avoid having to piece together a large drawing from several small ones; allow columns to be inverted in LisaCalc and LisaGraph; allow logarithmic axes and graphs larger than one page in LisaGraph; allow changing a selected range of LisaWrite text from upper to lower case and vice versa.

And last but not least, Dave Redhed of Clear Skies Consulting in Seattle reported that large fonts sometimes print too wide. Our tests found that long Modern text seemed to print exactly as shown on the screen, but Classic tended to print 1/8" short.

Signal #7 • December 1983

What Will 1984 Bring?

As usual, rumors about Apple's forthcoming products are a dime a dozen. Here's a small collection of the ones we keep hearing and which may therefore have a grain of truth:

- Better cutting and pasting, especially between LisaDraw and LisaWrite and between LisaList and LisaWrite, has been a high development priority over the past year and will appear in a new, considerably faster version of the software next month.

- The Profile will be superseded by a 10 megabyte or larger disk mounted inside the Lisa. A very large disk option (around 70 megabytes) will also be available.

- The "twiggy" floppies will be superseded by 3.5 inch Sony floppies.

Lisa could stand a bigger disk, but does it have to also remain tied to floppy technology? Why not offer a 1/4-inch tape cartridge peripheral to allow quick and easy backups? Many engineers seem to feel every microcomputer needs floppies, if only for software distribution, but couldn't short, cheap, disposable tape cartridges be used for that?

Free Report On LisaProject

Papers for the 15th Annual Seminar-Symposium of the Project Management Institute include a 10,000 word report that describes and evaluates LisaProject.

A free copy of the paper, which features comparisons of Lisa with other project management systems, can be obtained by writing author James Halcomb at Halcomb Associates Inc., 510 E. Maude Avenue, Sunnyvale, CA 94086.

An abstract of the report begins by stating that Apple has "accomplished a breakthrough of great historical significance in the field of management by developing its Lisa personal computer system and integrated LisaProject software". A brief article on page 32 of *InfoWorld* volume 5 issue 48 also describes how Halcomb has joined Lisa with a Hughes 700 graphics projector for generating large displays during meetings and conferences, thereby turning a personal computer into a "conference computer".

How To Lose A Document

Imagine that it is December 1st and you have done a full backup of your Profile to floppies. Each night from then on, you do a "changes only" backup. Around December 5th, someone else in the office hands you a floppy containing a document for you to keep. The document was created October 1st, and hasn't been changed since that date. Say you mount the floppy and move (not copy) the October 1st document from the floppy to your Profile. Note that because you are moving and not copying, the document's creation and modification dates (visible by selecting a non-pictorial view) will not change. Now continue doing "changes only" backups each night. The October document won't be backed up! If you have to restore your system from your backup disks before the next full backup, the October document will be lost.

A Self-Service Gotcha

When our first Lisa was still under warranty, we began having problems with the upper floppy. We removed the complete disk module as shown in the documentation, and then removed the six screws holding in the top floppy and sent just that unit in for repair. Imagine our surprise when the replacement arrived and we found it mounts from the bottom by four screws instead of from the sides by six. Turns out the upper floppy sits on a plate which then mounts to the disk cage. Without noticing, we had removed the disk and plate and sent both in. We had to wait weeks before the plate was recovered and we could finally install the new floppy.

Our Christmas Wish List

We wish a document could be printed by simply duplicating it and then moving the copy to a printer icon, without having to open the document itself.

We wish the repair operation would create a list showing which documents were changed because they needed repairing.

We wish the labels on floppy disks had more room for writing. If you invent a floppy sealed in a white jacket that can be written on (instead of a useless black crinkled finish), please remember you read it here first.

We wish you a merry Christmas and a happy New Year!

Signal #6 • November 1983

The Avoided Environment

If the Workshop is installed, but the Office System is the default environment, how can a powered off Lisa be made to go directly to the Environments window when turned on?

Section 1.2 of the preliminary Workshop documentation says to press any key while the Lisa is starting up. If this is tried before the double click is emitted by the speaker, the Startup menu shown on page G2 of the *Lisa Owner's Guide* is displayed (just as troubleshooting Procedure N on page G23 says), but the Environments window is still never reached. Page 118 says hit any key after the double click, but that doesn't seem to have any effect. Page G26 says to press the Apple and Shift keys after the double click, but the Office System is still reached when this is tried, and from then on, clicking on the mouse fails to work properly!

This problem had even the Hotline people stumped. To reach the Environments window, it seems the Office System *has* to be started, and then holding down the Apple key while powering off finally does the trick.

1.4 Release Fixes LisaCalc

A number of *Signal* readers have mentioned hearing rumors about the unreliability of using the

Apple-period combination to abort operations. We were also surprised to see a 1.4 version operating system mentioned in a letter from a dealer discussing his experiences using LisaCalc.

A quick check with the Lisa hotline explained everything: yes, there is a problem with using Apple-period (documents can be damaged), but only in LisaCalc, which also has a bug that occasionally causes "long" (on the order of one or two hour) saves when putting a document away.

We've learned that users who have been bothered by these two bugs can turn in their LisaCalc master disk, along with their Office System I and II master disks, and receive a corrected LisaCalc and new Office System (called version 1.4) in exchange. Wouldn't it be great if Apple follows this exchange policy for every new release of the Lisa software?

Why Didn't We Think Of That?

William F. Conde, Jr. of Edina, Minnesota wrote to remind us that using the Shift-Option-0 "privacy feature" (see page C8 of the *Owner's Guide*) is a nice way to momentarily stop the printer, and is probably a lot more convenient than collaring the mouse with a rubber band, as we explained under *Rubber Band Freezes DMP* in *Signal* #5.

A Big Retail Discount

We opened the pages of a local newspaper's business section this week, to find ads announcing that Quest Computers (with offices in Dallas, Houston, Detroit and San Francisco) is advertising the standard-bundled Lisa hardware and software for \$8,490 "with an additional \$1,000 off for the first twenty Lisa buyers!" Outta my way, I'm going to Quest...

More Reader Responses

Our *Signal* #1 item titled *Where To Put That Profile*, which mentioned leaving the disk on, even when the Lisa is powered off, prompted a call from Terry Wetterman of LT Consultants (a management consulting firm that specializes in working with disk drive manufacturers). Terry claims the Profile is a Seagate unit with a 10,000 hour mean time between failure rate, which means that leaving the disk on constantly averages out to only a little over a year before it needs its first repair. Terry was also the first to mention that double clicking the mouse before closing a region nicely solves the *Shading A Rounded Region* problem in *Signal* #2. (The double click method of prematurely ending a polygon was also pointed out to us by Bill Krause of Island Park, NY, and is briefly mentioned on page C34 of the LisaDraw manual.) Note that our original method would still have to be used for a shape such as the outline for a hotdog, with two parallel lines joining semicircles at each end. In that case, the two arcs on each end are attached by two line segments that can't define a region, so an additional white line rectangle has to shade the middle of the hotdog from behind.

Remember...

that many special characters can be typed by holding down Option.

Signal #5 • October 1983

LisaWrite Wish List

Part 2, by Nathan C. Myers

Page Ruler. LisaWrite should allow moving the "top line" indicator up over the header indicator (perhaps moving the header indicator, too) so that text can be up close to the page boundary. Whenever text is saved to the disk, or loaded, or switched between "preview pages" and "don't preview pages", or when the page ruler is displayed, the display jumps to the beginning of the document. This is very annoying. "Preview pages" seems to work fairly well, but you can't see where the page boundary is unless the page ruler is turned on. There should be a line across the page showing its position even when the ruler is not on.

Elevators. The elevators do not provide enough information about how much of a document is visible within the window. The following technique may be applied to any application and really ought to be built into the Toolkit: the elevator's size should be proportional to how much of the document is visible in the window. Precisely, the ratio of elevator size to "elevator shaft" length should equal the ratio of window size to document size. The immediate objection that arises is that in extreme cases the elevator would get too small to see or handle. The obvious solution is to specify a minimum size for the elevator, perhaps half the present size. Since in extreme cases an exact quantitative report is not necessary, just noting the small elevator provides all the information needed. In fact, it provides no less information than the elevators as currently implemented. In intermediate cases, the proportional elevator would save a great deal of time spent scrolling around trying to find a particular area of the document, or just trying to see how big the document really is. The bottom border of the edit window does not really need "page mover" view buttons, but it really should have an elevator, preferably a proportional one.

The cursor. When one begins typing, the pointer disappears. This is as it should be, but when you go for the mouse again, the pointer reappears in what always seems to be a random position, as one is rarely interested in where the pointer was when it disappeared. It should instead appear where the text cursor is, since that is the current point of interest. It is critically important to allow use of the cursor movement keys. Using a mouse is fine when you need to move halfway across a page, but for moving right one space or up one line, it's far too much trouble to reach all the way to the mouse.

Editors' Note: Having a constant elevator size seems much more appealing than having to point to a shape that represents the same function but which has a different size at different times. Perhaps symbols inside the elevator box itself could represent the window's size and location?

AppleLisa Wants You

The AppleLisa Association is a non-profit organization of Lisa users that is now forming. Some of the group's initial activities: publishing a newsletter called *Icon* and establishing a template library and special interest groups. To become a member, send \$40 and your serial number to AppleLisa Association, Box 634, Santa Clara, CA 95052.

LisaCalc Print Tricks

Are you wasting time, paper and ribbons printing a whole spreadsheet when just a copy of one or two columns is all you need? A letter from Bill Stanley of the Computer Shoppe in Greensboro, North Carolina described the following methods of selectively printing columns from a LisaCalc spreadsheet: to print only one column from a sheet, put page marks on each side of the column and then print only that "page" by specifying the necessary range in the Print... dialog box. To print only the extreme ends of a sheet, say columns A and F, just Cut columns B through E, print the page, then Undo Last Change to restore the sheet.

Rubber Band Freezes DMP

We'll frequently start printing on our dot matrix printer and then suddenly need to momentarily stop the printer to make some small adjustment, such as repositioning the paper. Sadly, unselecting the printer causes the Lisa to stop and force us to cancel the print job. Apparently, only holding down the mouse button makes the printer pause. A rubber band (for collaring the mouse to keep the button down) has now become a standard piece of Lisa hardware at *Signal*.

What's...

that mysterious unused connector inside the Lisa behind the floppies?

Signal #4 • September 1983

LisaWrite Wish List

Part 1, by Nathan C. Myers

Headers and Footers. LisaWrite should have an option to place a unique header on page one, and the top-line and bottom-line positions on the first page need to be independent of those in the rest of the document.

Book Marks. There should be some quick way to mark a position in the text, scroll to some other portion of the document, and return to the marked spot. This is equivalent to what is done all the time when one reads a paper document: you hold a page, flip to the appendix, then continue where you left off. One way to do this would be to remember where the text cursor is and jump back to it, preferably while allowing editing at the new location without forgetting the old location.

Search/Replace. If a word being replaced is capitalized, the replacement word should be capitalized also. This rule may be impossible to generalize for multi-word replacement strings, but the single word case is so common it deserves special attention. The replacement string should, at least optionally, take its typestyle from the string it replaces. Wild cards are useful, but it should also be allowable to denote and use the "found" wild card character in the replacement string. If a replacement string includes a paragraph break, the format of the old paragraph is trashed. There should be a way to set the format of the replacement string. The size of the dialog box for search and replace strings should be adjustable to avoid covering up the scroll controls at the top right corner of the window. The search string default font should somehow relate to what is in use in the document.

Justification. The paragraph justification options do not seem to work correctly with any fonts other than PS Modern and PS Courier. The ability to format a paragraph according to the contents of the clipboard should be made more easily accessible: one should be able to copy the format of a paragraph containing the cursor into the clipboard without having to select the entire paragraph first (the cursor position should be enough, just as it is enough when bringing up the tab/margin ruler).

Tab/Margins. The tab/margin ruler invariably pops up somewhere it shouldn't, and it jumps the window contents around in capricious ways. The ruler takes up so much screen space that those of us who are inclined to leave it displayed cannot. It should be about half as thick or less and should always appear at the top of the window. It may be useful to allow it to be "dragged" to another place, but it should initially appear in a predictable spot. The menu entry for showing or hiding the ruler should have a check mark at the appropriate spot. If a tab is entered for which no tab position has been set, the cursor moves one space. What should happen is that a normal tab should be automatically set at a position some multiple of eight or ten positions from the left margin and the cursor placed there. This allows a much more streamlined entry of tabs compared to turning on the ruler, setting a tab, shutting off the ruler, and finding your position again. If the tab happens to appear in the "wrong place", the user can always go in later and adjust tab positions. This way the user's train of thought is not interrupted.

Pagination. "Keep On Same Page" is a valuable feature, but it does not provide sufficient clues to identify how large a block is being grouped. If I specify that each of two contiguous paragraphs is to be atomic, how can I tell by looking whether a page break may occur between them? On the other hand, when a paragraph is "Allowed To Cross Pages", there is a special circumstance in which one never wants it split: when there is room for all but the last line. The accepted technique in this case is to "extend" the page layout to allow one extra line of text above the page footer. For some page layouts it may be necessary to "reserve" space for one line of text and never print into it unless it becomes necessary.

Lisa Prices Plummet

David Redhead, a Seattle consultant and *Signal* reader, called to ask if we had heard anything about Lisa price cuts. In checking with our local dealer, we soon found that because of Apple's new pricing policies, some amazing price reductions had become effective at that retail outlet beginning four days ago on September 12: a Lisa, Profile, dot matrix printer and software is now only \$8,490. The six applications have been unbundled, can be purchased separately, and total \$1,195. Buying just the Lisa and Profile comes to \$6,995. This means that the printer and interface card are only \$300 when purchased with a Lisa.

Signal #3 • August 1983

Report From The Castle

San Mateo's Dunfey Hotel, which might be described as a kind of English Tudor castle, was the site of Apple's week-long Independent Developers' Conference, and *Signal* was there on "Lisa Day", August 11th, to observe the activities. Looking back now, three aspects of that

gathering seem most interesting: (1) the pervasive feeling that a relatively small group of individuals, and not a large corporation, created the software that makes Lisa so special, (2) the confused state many developers surprisingly seemed to be in as they tried to decide which of the available environments (standalone or windowed or Toolkit) would best support their software, and (3) the nice speed improvements already evident in the unreleased software running in the demo machines that happened to be there.

Award for best anecdote told by a speaker goes to QuickDraw author Bill Atkinson for his story of how Apple co-founder Steve Jobs convinced him to include warm and friendly RoundRects (instead of supporting only cold and computerized rectangles) among Lisa's graphics routines.

Credit Where Credit Is Due

While the Developers' Conference made it clear that individuals and small groups are responsible for much (if not all) of Lisa's software, it is interesting to note that out of the six applications binders that come with each machine, only LisaProject includes a cover page declaring it is a "Program by Debra J. Willrett".

Quote Of The Month

"It's like Lisa, only separate machines are better". Those are the words of a New York City investment banking vice-president (see page 16 in the *ICP Interface Administrative & Accounting* August issue) as he explains how using a Compaq portable, an IBM PC, and an Apple III all at once provides him with truly multiple windows and literally split screens. We're afraid to ask if cutting and pasting between the systems is accomplished with floppies and scissors. Perhaps the 200 people-years spent on Lisa was all for nothing?

Fooling LisaWrite

Developers who need to move large amounts of text from the Workshop editor into a LisaWrite document in the Office System might like to try this risky shortcut:

1. In the Workshop, place the text to be moved into a file with a name such as (D999T1), which is the format of the "private" LisaWrite filenames that appear in directory listings once the F command is given to the System Manager in the Workshop.
2. Go to the Office System environment. There won't be any sign of the file, yet.
3. Repair the disk! The system will find the file and display it on the desktop with a name like Document 999.
4. The new document may now be edited with LisaWrite.

Read Protects & Backspaces

Jeff Bradford of Apple gave us a call to mention that a write protect (see *Signal* #1, *The Topology Of Lisa Disks*) is also a read protect, and Lisa can't really do much with a write protected disk. Also, a shifted backspace (same issue, *A Lisa Bug (Or Feature?)*) restores the character erased by any immediately preceding backspace. This seems to work everywhere on the system, although we could find no mention of this feature anywhere in the documentation. We still would like a shifted backspace to act like a normal backspace if there is no previously erased character to be restored.

Peanuts, Popcorn...

The industry is already abuzz with rumors about IBM's "Peanut" machine, due to be unveiled in September. Now the August *Datamation* reports that IBM is also working on "Popcorn", a 68000-based \$10K Unix machine for challenging Lisa in the Spring of 1984. That same issue claims Apple has sold out its 1983 production of 20,000 Lisas, and that Lisa floppies are hard to find. Until recently, we *did* notice a floppy shortage, but now dealers seem to have plenty in stock. Prices are high, but shopping around helps: one dealer quoted us \$70 for a box of five disks, while another asked \$120 for ten.

Signal #2 • July 1983

Shading A Rounded Region

Imagine using LisaDraw and four line segments and an arc to construct a square object with three right angle corners and one rounded corner. You group all of the objects (in an attempt to form one region) and ask LisaDraw to shade the result, only to find that the rounded corner is the only part of the object that is shaded.

Because individual line segments have been used as boundaries, LisaDraw cannot recognize that the object is one enclosed region. How can the object be shaded?

One solution is to define a more or less congruent polygon using the same endpoints, but with the lines defined white instead of black. Then shade the polygon, position it to overlap the original region, and send the polygon to the background.

The final result will look like the desired region, shaded in the arc by the foreground object, and shaded everywhere else by the background polygon.

Quote Of The Month

"We ripped apart Apple's Lisa and found it limited by limited software." That claim appeared as a caption under a small picture of a disemboweled Lisa in the two-page ad by Fortune Systems in the July issue of *Computer Dealer*.

Lisa Day: August 11th

Apple is sponsoring a week-long Independent Developers' Conference during the week from August 8th to 12th, with Thursday, August 11th devoted to the Lisa product (although all attendees are required to register for the entire conference week). The conference will be held at the Dunfey Hotel in San Mateo just south of San Francisco, and is intended to provide "marketing and technical direction and strategies" for all Apple product families, using discussions, presentations, and hands-on workshops. Contact Hazel Holby at 408-554-5090 for more information. See you there!

Where To Plug That Printer

The Lisa installation instructions don't make a fuss about which port on the parallel interface card should be used for the dot matrix printer, but note that you can't use the option-shift-4 keys to print the screen unless the printer is on the upper connector of a parallel card in slot 2. (See pages

D48 or D75 in the *Owner's Guide*.)

Are Passwords Possible?

Lisa users who require some level of confidentiality while using their machine quickly discover how easy it is for anyone to walk up to an idle Lisa and to begin perusing all documents.

The obvious solution to this problem would be to allow users to assign passwords to documents and folders to prevent unauthorized access. Are passwords possible? A few minutes spent skimming the *Operating System Reference Manual* reveals that passwords are already supported (but not used) at the device and volume level. We predict that it won't be long before accessible passwords appear in a future release of the Office System.

A Programmer Cries Out

Speaking of the *Operating System Manual*, its most interesting TYPE declaration is the array of pmByteUniqueForAllTheDamnCryBabies found on page A-8 of the first appendix in the Beta release.

Establishing A Backup Library

1. Organize all Profile folders and documents into one final folder called, say, Master.
2. Label six diskettes, one for each day, Saturday through Thursday. Label four diskettes, one for each Friday, from the 2nd through the 5th Friday of each month. Label twelve diskettes, one for each month, for the 1st Friday of each month.
3. At the end of each day, copy the Master folder and move the duplicate to the appropriate diskette for that day.
4. Send each Friday's diskette off site to a safe place for one month.

Signal #1 • June 1983

Welcome To Signal!

You are reading the first issue of *Signal*, a publication designed for "Lisa users and developers". Lisa, of course, is the new computer system officially shipped for the first time this month by Apple Computer. Lisa users are the end-users who have purchased Lisas (typically from a dealer or perhaps through Apple's National Accounts Program) in order to automate their offices and to solve day-to-day business problems. Lisa developers are a group consisting of: (1) vendors developing hardware and/or software products for sale to Lisa end-users, (2) dealers, such as retail computer stores, and (3) original equipment manufacturers (OEMs) who incorporate Lisa products and technology in their own products for resale to users.

As Lisa grows in popularity and stature, certain needs will become apparent to Lisa users and developers: the need for information about systems and applications software and hardware, the need for exposure to other users and vendors, the need for a forum for the exchange of ideas, the need for timely data on new products and developments. *Signal* is here to help fulfill those needs. We hope you will join us.

Why 7 x 9?

The 7 inch by 9 inch format of *Signal* is no mere accident. All of your copies of *Signal* will fit quite nicely inside the standard binders that come with a Lisa. The Accessory Binder (that's the one with no title printed on the spine, Apple part number 620-6151) will probably have the most room for your *Signal* issues, since that binder usually only contains miscellaneous hardware manuals. And don't worry about an index. Future issues of *Signal* are being planned which will contain complete indices to past issues.

Where To Put That Profile

A strict interpretation of the Profile *Owner's Manual* may cause one to believe that "flat" means "level", and that a Profile disk should only sit on a nice, firm tabletop. Don't worry, just stack it on top of your Lisa. (The system documentation never actually says to do it, but it's hard to find a picture of a Lisa that isn't sitting under a Profile.) And even though the *Owner's Manual* may sound like only the Rock of Gibraltar can be an acceptably solid foundation for your Profile, Semaphore has found the unit to be quite good at ignoring bumps and vibrations, even while sitting atop a wobbly desk that begins shaking the moment any large truck comes within a two block radius. However, we do follow the *Owner's Manual* recommendation to leave the Profile powered on at all times, even when the Lisa is turned off.

Pointers To Pascal

Lisa software developers looking for significant Pascal programs that are in the public domain should consider reading back issues of *Pascal News*, the newsletter which for a number of years now has been devoted to the Pascal cause. The set of back issues 9 through 21 can be ordered for \$32.50 from Andy Mickel (a former editor) at 106 SE Arthur Ave., Minneapolis, MN 55414. Apparently issue #25 is the most recent at this time. Other issues and new subscriptions can be purchased from Charles Gafney (the current owner) at 2903 Huntington Rd., Cleveland, OH 44120. Four issues are currently \$15, but the rumor is that the price will go up in July.

A Lisa Bug (Or Feature?)

Heavy-handed typists will be disappointed to discover that LisaWrite and the other Lisa programs all seem to ignore the backspace key if one's pinkie is holding down the shift key.

The Topology Of Lisa Disks

Among the various innovations introduced by Apple in its Lisa product is yet another style of floppy disk. You won't yet find this particular disk on the shelves of many computer stores. The only name we've found for it so far is 687-8001 (the packing list entry for a box of five blank disks). The manuals don't say, but a source from Apple assures us that the edge notch *not* on the corner is the one for write protecting the disk.

Subscriptions to Signal are FREE! Just send your Macintosh serial number to Signal, 207 Granada Drive, Aptos, CA 95003.